

ARCHITECTURE

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Form in Modern Architecture

I. THE BREAKUP OF FORM

By Lewis Mumford

DURING the last two centuries architecture, like society, has been in a state of transition. The field has swarmed with new ideas, and each fresh effort, so far from providing a departure for future building, has rather increased the chaos and dissonance and the lack of a common understanding. Such order as architecture has achieved has been temporary and local: for a moment in the eighteenth century, for example, the aristocracy learns the secret of building great squares of unified design, grouped about a park, as in Edinburgh or London: but these patches of coherent architecture were temporary and local, triumphs that were swiftly swallowed up by a quite different order of building in other parts of the same society. Looking at one building at a time, one may discover competent design and even a certain logic in its development: but when one considers all the buildings of the transition together, the Palladian country houses, the Greek savings banks, the Romanesque court houses, the Gothic churches, and the suburban villas that are so many souvenirs of foreign travel, so many commentaries on history, or so many symptoms of repressed desires—when one considers architecture as a whole, one is conscious of a general dissolution. A divided society, a divided mind—and in consequence a disrupted sense of form.

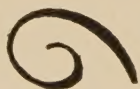
So muddled have both architects and critics of architecture been as to the nature of the modern transition, that even those who sought

to pioneer in new territories have been almost as greatly handicapped as those who clung to the safety of the past. The sanguine and happy spirits who conceived the iron-fronted office buildings of the sixties, the scroll-saw villas of the seventies, and the iron-framed smoke halls (railway stations) of the eighties were eager to produce new forms and confident that they were beginning to utilize to the full the new inventions and materials that science had introduced: but a close examination of their product shows that they were in fact almost as far from the sources of form as their more timid rivals and successors, who sought to bring back the achievements of Palladio and Vignola, as these in turn had looked for inspiration in the monumental débris of Rome.

Why has this confusion persisted? Why is the gap between Mr. Geoffrey Scott and a modern engineer, between Doctor Ralph Adams Cram and Le Corbusier, as great as that which existed between Ruskin and the designer of the Crystal Palace: why, indeed, are they still substantially going over the same ground and wrangling over the same differences? The answer is, I think, that we have sought in æsthetics some guidance to the problems of form without first achieving a critical understanding of society. Architecture is bound up with the social transition; and it is the singular demerit of a large part of architectural theory and practice that it has no living relation with the society that produces it, or, what is just as serious a

defect, has accepted some particular accident, like metropolitan congestion, as if it were a permanent condition which should be fostered and preserved for the sake of its occasionally happy æsthetic effects.

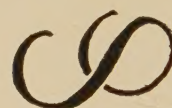
Now architecture is predominantly a social art; indeed, during all the great periods architecture has, as a matter of course, embraced city planning; and to fancy that the design of buildings can be isolated as a pure æsthetic problem and solved solely by the ingenuity and taste of a single personality is to betray a fundamental ignorance both of æsthetics and buildings. A good part of current æsthetic theory is disguised sociology; and it would serve criticism a little better if the sociology were avowed and criticised on its own merits, instead of being disguised by foreign canons and principles. Doctor Cram has been very open in his convictions that we should return to a mediæval polity, in order to have a basis for the kind of architecture he regards as the highest expression of the spirit: but some of our critics have stood for the baroque or the classic without being equally open about their intentions, and, by the same token, the machine, the engineer, mass production, have all been attacked and defended by people who have had only a very casual and sketchy notion of the sort of society implied by these conceptions of architecture.



At the very moment that the "battle of the styles" took place between the Romans and the Greeks, when vivacious contests between the mediævalists and the formalists made their way even into dinner-table discussions, at this moment—so admirably summed up in the convictions and vacillations of Barry and Pugin—certain fundamental changes were taking place in society which are making this whole series of quarrels irrelevant and meaningless. Before we can deal intelligently with modern problems of æsthetics, we must make a preliminary survey of the sources of form in modern society: we must look to our foundations. In building, the architect, the client, the trade, the craft, the system of production, to say nothing of the site, the civic relationship, are all anterior to the design. Form in building is in essence the form of a particular society.

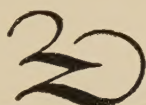
With our perspective on early industrial

society we can now see that the battle of the styles was doomed to be a losing one, no matter which side seemed victorious, for, with the introduction of new functions in economic and social life, with the displacement of old habits and modes of thought all along the line, form itself was disintegrating in modern society. By the middle of the nineteenth century form was gone. What was left was only a shadow, sometimes a great shadow, like the Westminster Cathedral or Trinity Church, projected from the past, sometimes an anticipatory shadow like the Crystal Palace or the Eiffel Tower, cast forward into the future: but never, during all this turmoil and change, a solid, integral form, existing in its own right, a perfect resolution of all the many elements that make a building, and a city of buildings. No matter how powerful the individual architect's imagination might be, his forms were denied by the ungainly realities of jerrybuilt villas, squalid factories, railroad yards that gashed and gaped through the city, as in Edinburgh and Boston, and, in general, by lack of wholeness, purpose, order, integration, visible alike in the business centre, the industrial slum, and the elegant suburb that sought to escape them.



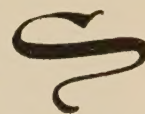
The architect was not to blame for this anarchy, and he was almost powerless by any individual act to avert it or surmount it. But a good deal of his preoccupation with the past, with dead forms, with embalmed beauty, may be characterized as an effort to compensate for his inability to understand and gain control over the forces of modern society. An individual may be helpless: but a profession has a corporate power, and just as the medical profession, impotent as individuals to remove the causes of smallpox, tuberculosis, typhoid fever, organized the resources of public health, so it has been open to the architects, and is still open to them, to deal corporately with the forces that condition, and so often undermine, their efforts. The architect's concern for "style," for archæological precedent, his willingness to be satisfied with his little patch of comeliness and beauty, has been an acknowledgment of his collective feebleness. In part, this aloofness does him honor. In times of profound social maladjustment the man who enters into relation with the dominant institu-

tions, who conforms and adapts himself, becomes a cripple, while the one who remains aloof may preserve until a more favorable occasion the standards of a humane order. It was better to hold on to the dead forms of the past than to accept, without humane change and modification, the opportunities which the present offered: indeed, when one remembers that the ugly, insanitary stereotype of the dumb-bell tenement in New York was the result of an architect's design for a model tenement, one is glad that he did not more cheerfully join the procession, and exercise a wider influence of the same order. But in practice the architect's unwillingness to meet the present, that is, to understand, criticise, and modify modern society, has resulted in turning a large part of our buildings into an architecture of escape, the equivalent in steel and stone of the neurotic fancies of the invalid. The interior of a movie palace or the antique furnishing of a modern skyscraper apartment is not normal to a living architecture: they are childish fancies which have scarcely the authenticity of true make-believe.



While the disintegration of form has been very largely a social matter, a part of it is due to the fact that during the Renaissance the architect began to lose touch with the vital tissue of contemporary society, by looking to the past for an inspiration he did not find in either the daily life, the religion, or the technical problems of building. This attitude resulted in a profound dissociation between the imagination and the practical task of building; it placed a premium upon scholastic knowledge, substituting archæology for positive taste and pedantry for craftsmanship. The projet, the paper design, became the central concern of architecture: so much so, that the architect blandly passed over utilitarian details when they interfered with the pre-ordained order of his plan or the symmetry of his elevation, just as he usually averted his eye from the actual effect of his fine building in the environment to which it was finally anchored. Unity, coherence, logic, relatedness, existed only on paper. When they were marred or destroyed by the actualities of the modern industrial town, the result was treated as an unfortunate accident—an accident despite the fact that it was repeated with the inexorability of a natural law.

Both current æsthetic theory and the habits of daily life have been kind to the architecture of the drawing-board; far too kind. We have formed a defensive practice of isolating buildings from their neighborhood and of accepting façades without penetrating, as it were, into the third dimension of a building, as though it were a canvas that could be hung by itself on a blank wall. The result is a perversion of judgment. This isolation, this separateness, this æsthetic self-sufficiency, are no more the properties of architecture than they are the properties of a living organism: form in building exists, not in any static photographic view of the structure, but in the continuous dynamic fulfillment of all its relationships, of which the effect on the eye, though vastly important, is only one. Mr. Geoffrey Scott's essay on the Architecture of Humanism, which demolishes so many fallacies about architecture, falls short of demolishing this one: indeed, Mr. Scott himself seems to believe that success in architecture depends chiefly upon the architect's skill in composition, in handling mass and line and interval, without respect to the means he may use or all the other relationships of function. On examination, one sees that Mr. Scott is in fact talking about pictures and not about buildings in their entirety, although it is plain that the composition of pictures is a separate art, whose optical relations—uniform light and a relatively fixed position for the observer—are entirely different from those presented by a building.



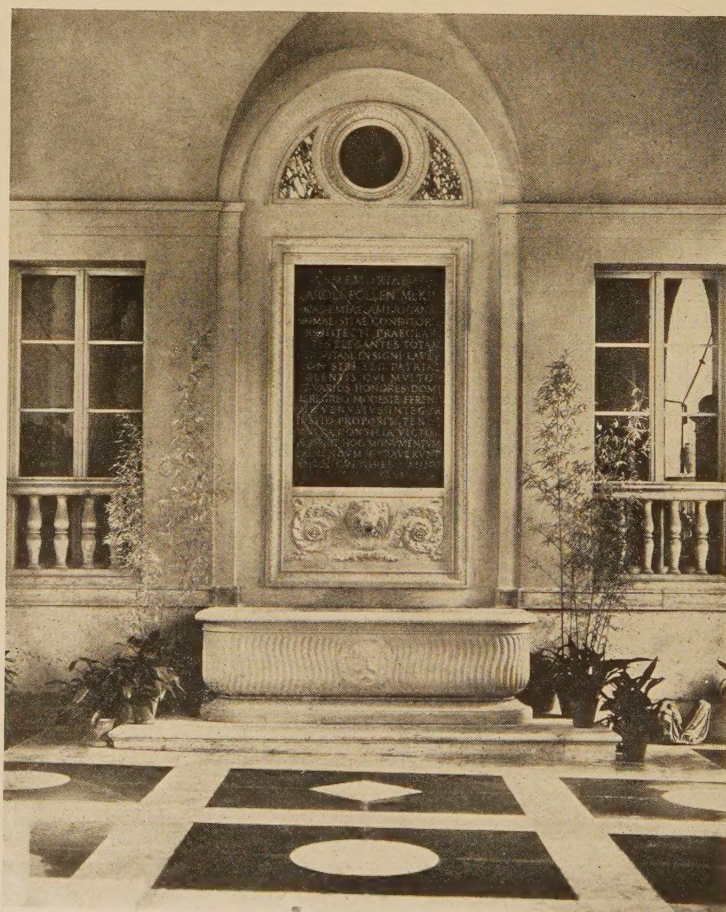
As pictures, as fixed abstractions, it may be quite true that one mode of building has no priority over another, and that a Baroque palace skilfully created in the present century is as justifiable from the æsthetic standpoint as a Baroque palace built two hundred years before. But as a complete structure the building is infinitely more than a picture, for it is not merely in its visual aspects, but in the meanings it conveys, the relationships it implies, the functions it subserves that it comes to life: the building is a synthesis of social elements as well as a composition in space. As pictures, a club by McKim and White, a Gothic church by Goodhue, and an office building by Louis Sullivan might all be equally good; or indeed, solely from this point of view, the first might be su-

perior to the last. Sullivan's buildings, however, had their roots in a solid conception of modern life, in an understanding of its needs, its functions, its further potentialities; they were rooted in a certain soil, a certain landscape, and gained in exuberance of energy by the electric confidence that is Chicago: hence, as living structures, his buildings have a quality which only the earliest works of McKim and White, or the latest products of Goodhue, could approach. Apart from skill in design, Sullivan's buildings had form; they were capable of extension and universalization in society, because they were intelligent products of that society; and we need not wonder that Sullivan found a solution of the office building, whereas McKim and White turned away from that problem—as "not architecture"—and, at all events under their own signature, would have nothing to do with it.

Form, let me repeat, is a social product. During the past two centuries we have canvassed and tried out many substitutes for form; but the results have been successful only on paper; and it is time we gave up that particular quest and came back to society, to seek it, not in archæology, not in history, not in "nationalism," not in "business," not in "the machine," but in the community as a whole and in the organic relationships that arise out of its life. Form cannot be separated from

human beings and their work and their environment, from technology, economics, city planning, soil, climate, social conventions and values, philosophy, æsthetics, and morals. The business of the architect is building, of course, and not sociology; but he can approach his goal to-day only to the extent that he understands the nature of modern society, draws from it the elements that will assist his expression, and modifies, collectively if necessary, those aspects which tend to disrupt form or make it impossible. His individual solution, his design, will not be a final product in itself: it will be an approach to synthesis, significant only to the extent that it comprehends and encloses the ordered life of the community. After three hundred years of dispersal and disruption, the beginnings of a fresh integration seem, perhaps, to be at hand. The mission of modern architecture is to hasten this crystalization and to give it formal expression. We are through with the picture and the picturebook, with abstract æstheticism, archæology, snobbism, pedantry, glib imitation. Architecture is building; and building is an organic expression of social life.

The architect who understands his society, though inferior in imagination and design, may have more to contribute to modern architecture than the brilliant artist who misinterprets his functions and relationships.



*The memorial to
Charles Follen
McKim,
in the
American Academy
at Rome*

*William Mitchell
& Kendall,
Architect*

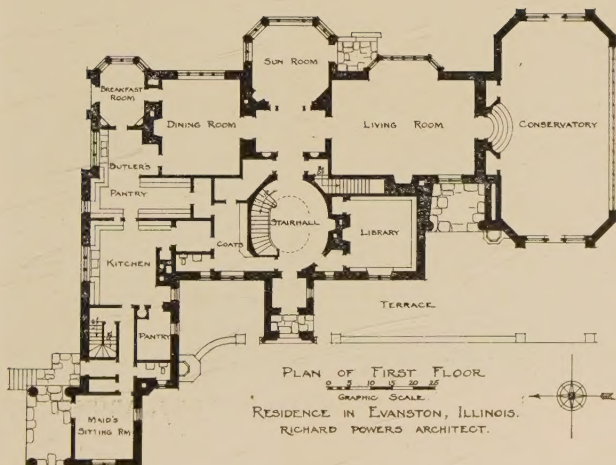


A HOUSE IN EVANSTON, ILL.

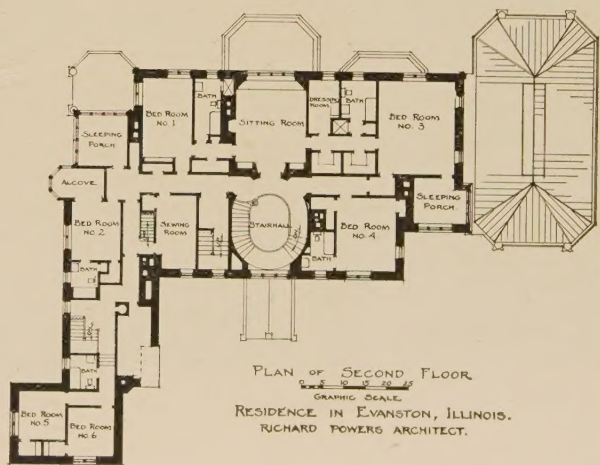
RICHARD POWERS,
ARCHITECT

Photographs by Tebbes & Knell

First-floor plan



Second-floor plan





A HOUSE IN EVANSTON, ILL.

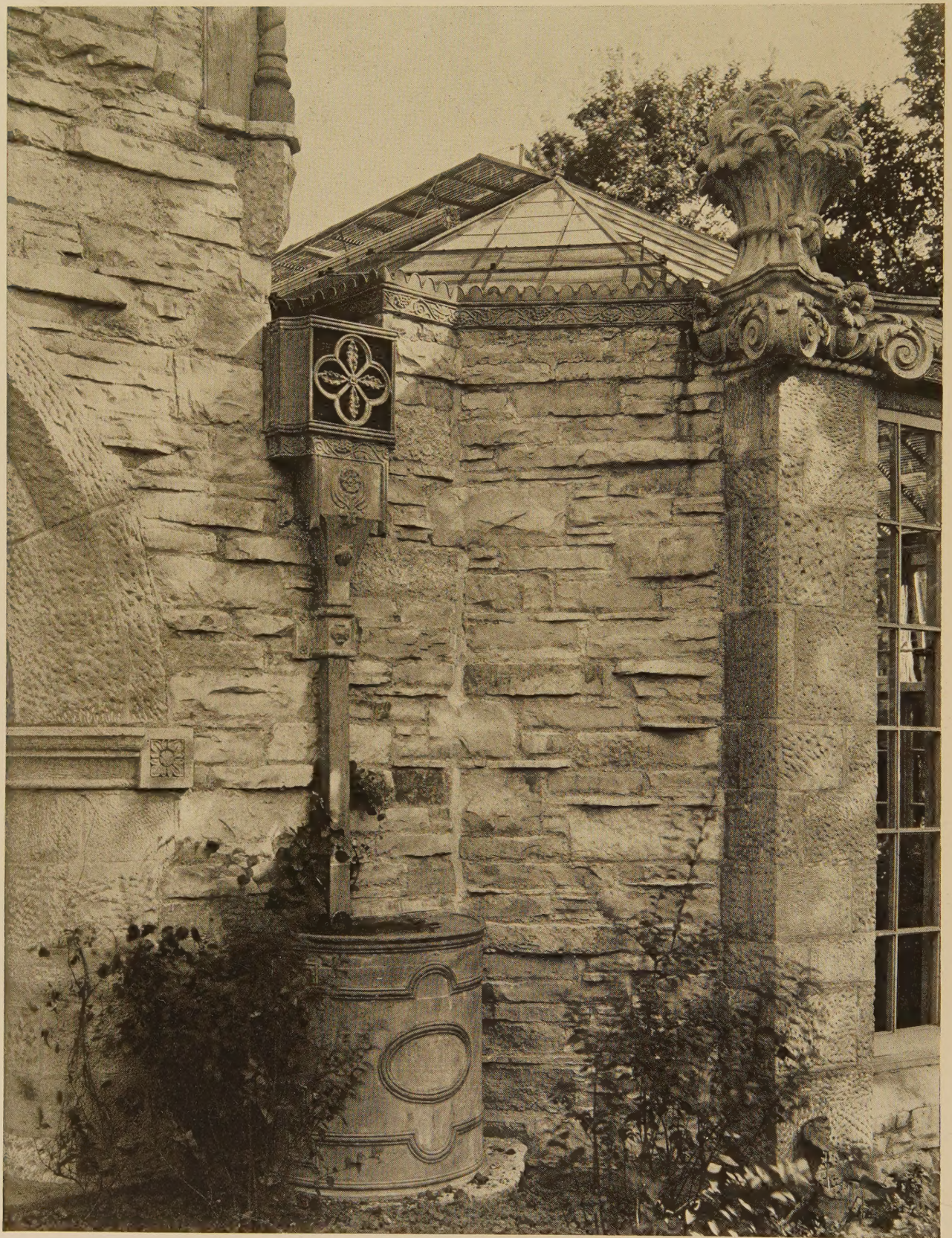
RICHARD POWERS, ARCHITECT



Door to conservatory

A HOUSE IN EVANSTON, ILL.

RICHARD POWERS, ARCHITECT



Lead conductor and cistern

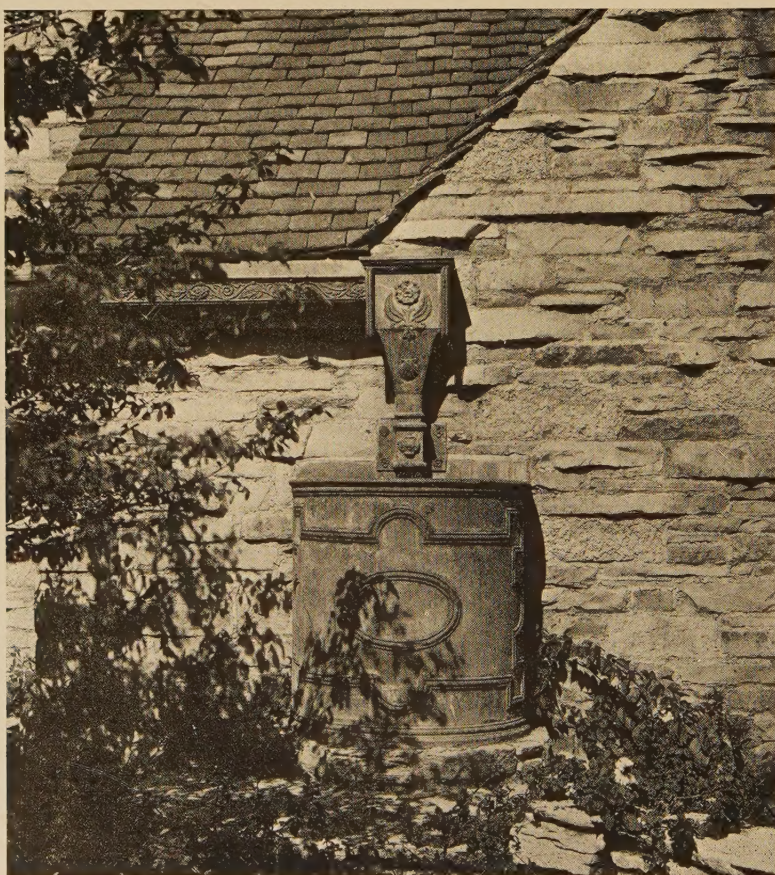
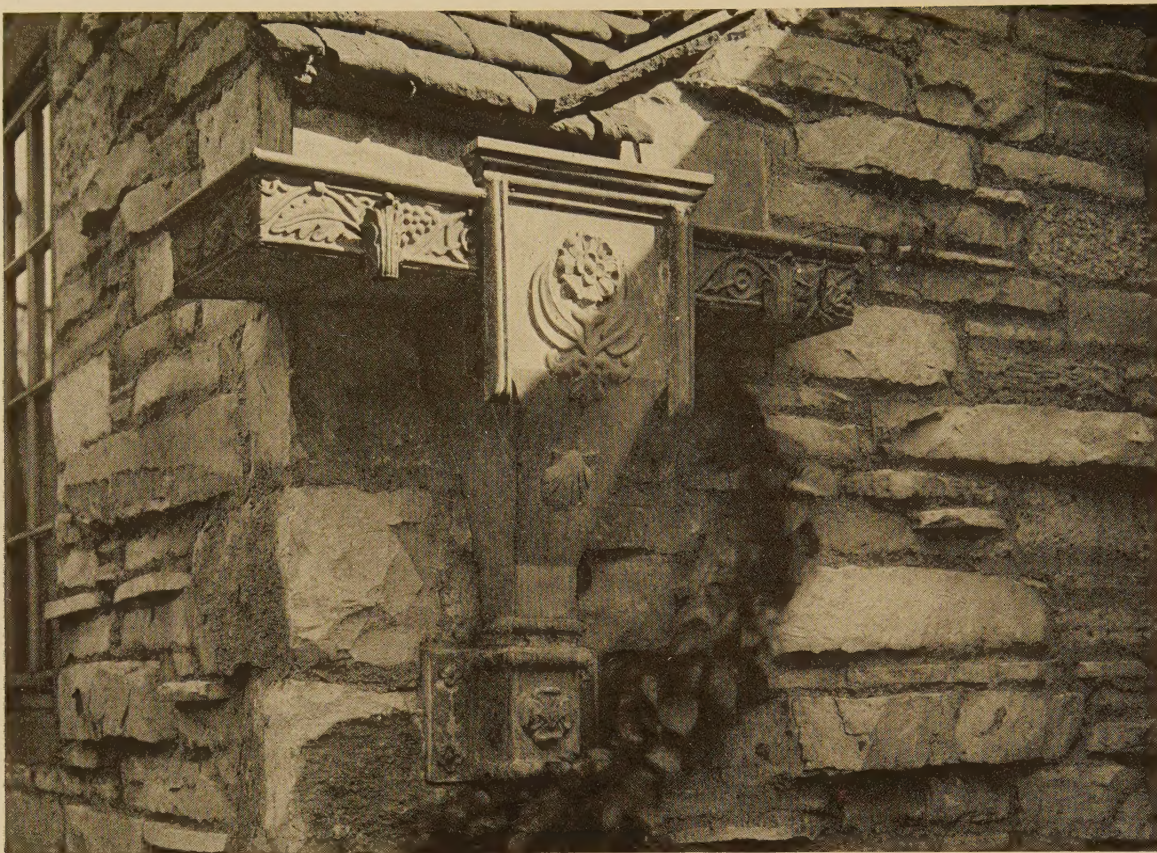
A HOUSE IN EVANSTON, ILL.

RICHARD POWERS, ARCHITECT



A HOUSE IN EVANSTON, ILL.

RICHARD POWERS, ARCHITECT



A HOUSE
IN
EVANSTON,
ILL.

RICHARD
POWERS,
ARCHITECT

Details, Royal Horticultural Hall, London

EASTON & ROBERTSON, ARCHITECTS

General exterior and interior views of this building were published in the December, 1928 issue of ARCHITECTURE



Photographs by Gerald K. Geerlings

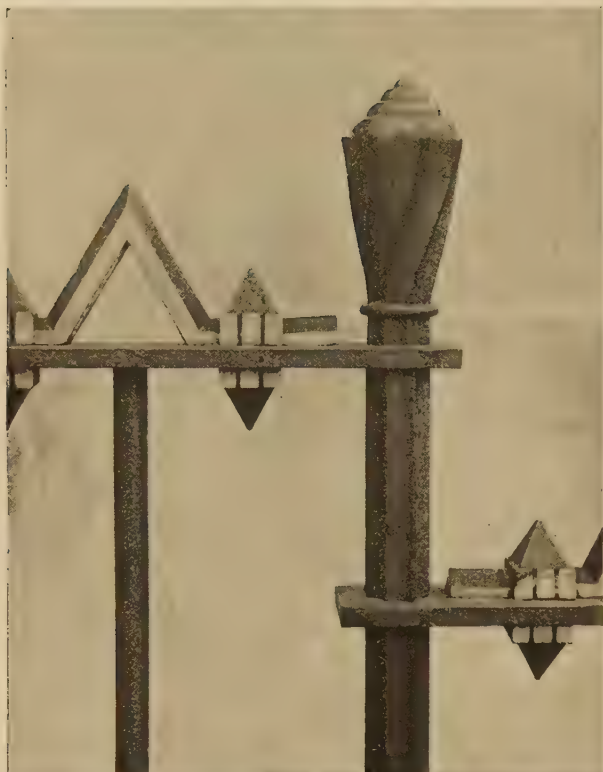
A general view of the entrance-front. This building recently was awarded the R. I. B. A. London Architectural Medal



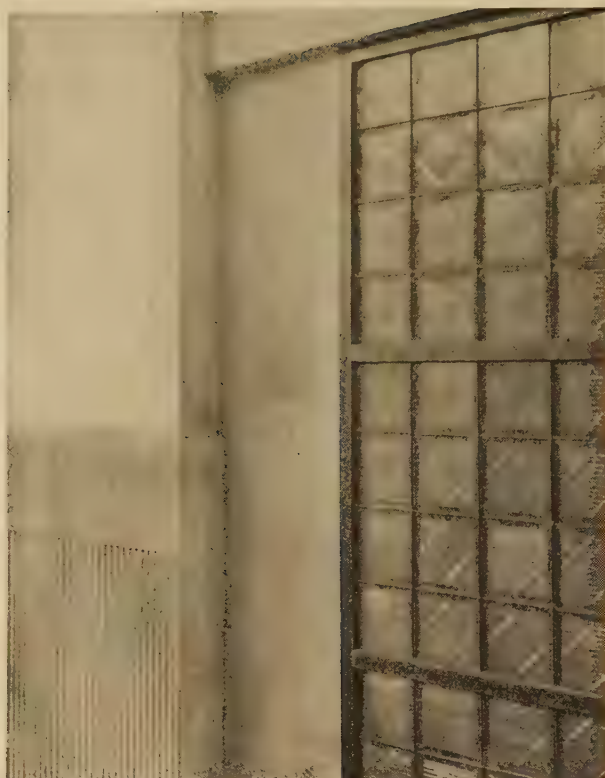
Details of interior stairway, with marble cheeks and cast-iron railing. While modern, the latter contrives to be structural in design



One of the three entrances. The marble above the doors is verd antique with sunken lights shielded by the projecting glass plates, marquise cresting of lead, gilded



Details of exterior cast-iron railing at end pavilions of front elevation; painted black and gold (part which appears lightest)



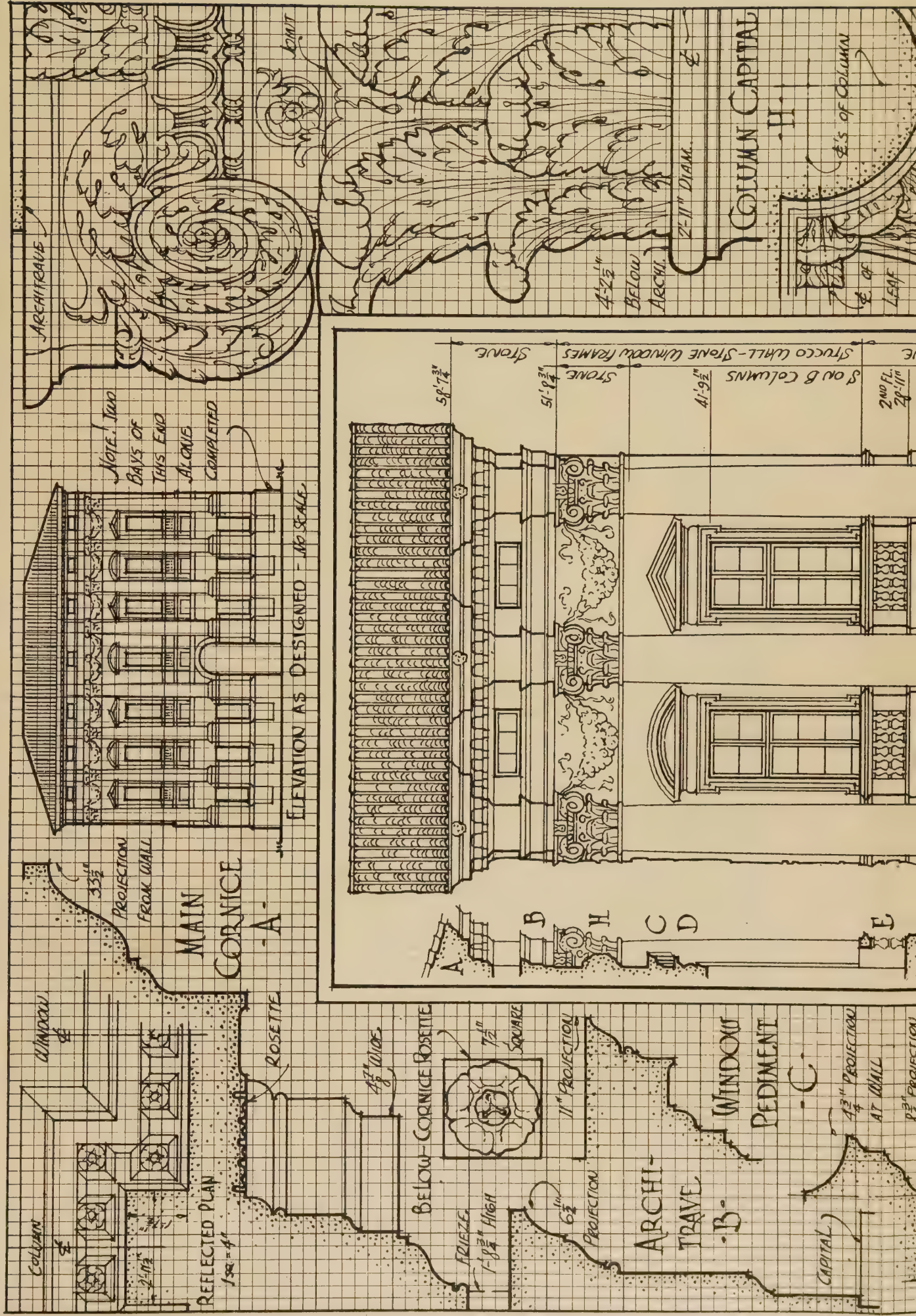
Basement windows on side street. The glass is three-fourths inch thick, fused between copper ribs, and is almost unbreakable

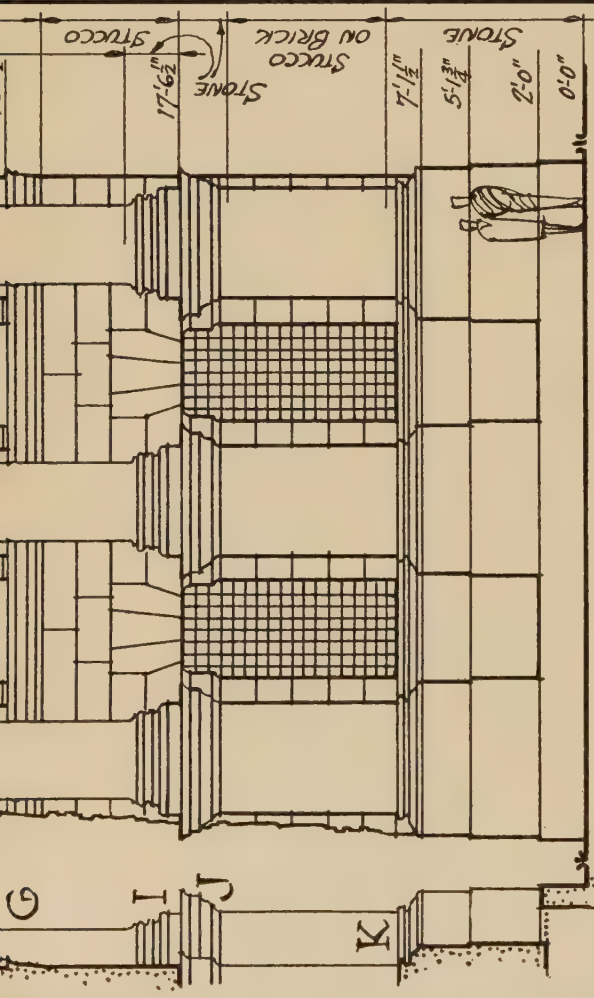


Details of entrance on side street, and typical basement windows as shown in detail above. The cresting of the flattened marquise is of lead

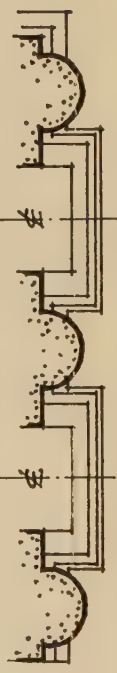


Inside, the concrete is frankly exposed and finished by a pneumatic bush hammering. To the right of the concrete appears yellow acoustical plaster

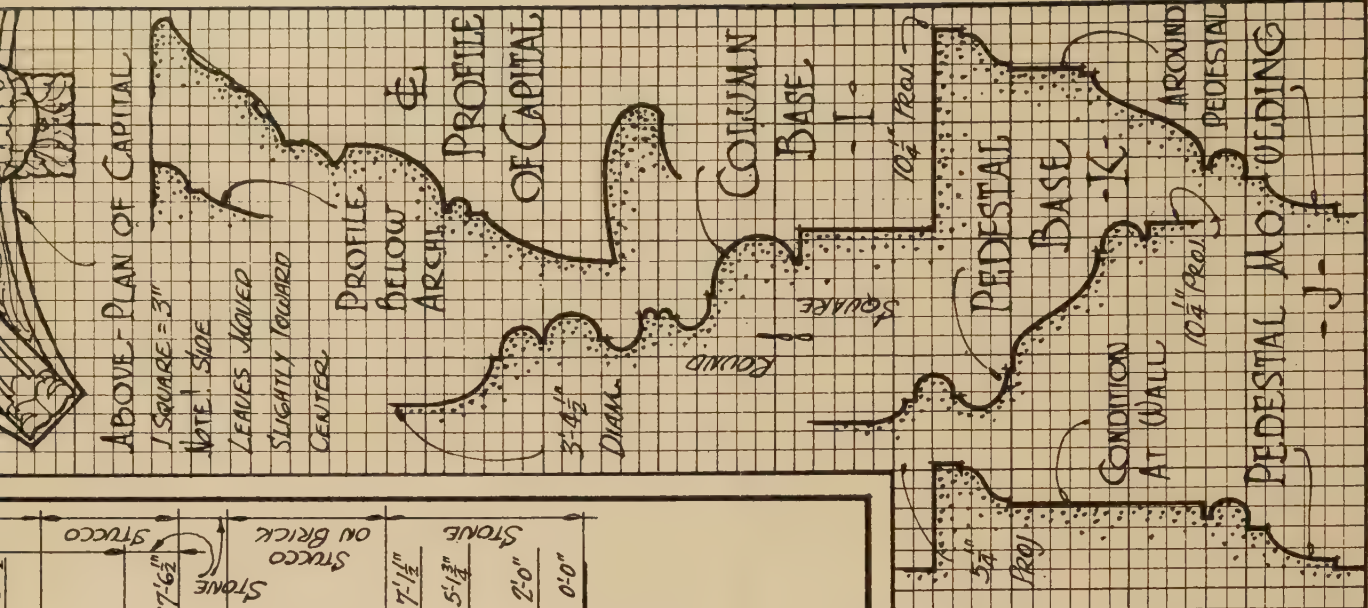




ELEVATION AS IS



PLAN AT BALCONY



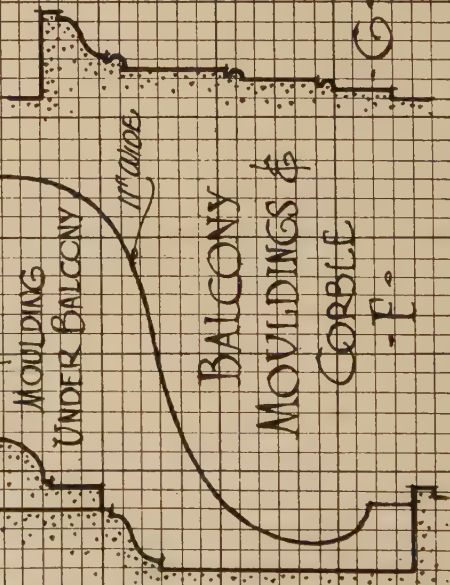
DALAZZO GIULIO PORTO

1560, VICENZA, ITALY

ANDREA PALLADIO

ARCHITECT

SCALE OF DETAILS: 1 SQ. = 1" UNLESS NOTED
FACADE STONE, & STUCCO OF SAME COLOR ON BRICK
MEASURED & DRAWN BY WARREN HOAK 1926







NOTES

PALAZZO GIULIO PORTO, 1560, VICENZA, ITALY

ANDREA PALLADIO, ARCHITECT

This unfinished structure is also called the "Casa del Diavolo," or, as generally known in Vicenza, the Antica Posta.

William J. Anderson, in "The Architecture of the Renaissance in Italy," says of this monument:

"Had this façade been completed, as shown in the elevation drawing, it might have ranked as one of the finest of Palladio's palaces; and from the full-size model of two bays, which represent all that was carried out, its good points can be appreciated. Of enormous scale [as the door and window openings of the adjoining house will testify] . . . it is beautifully proportioned and delicately modelled. . . . Above the pedestal

bases it is . . . constructed of brick faced with stucco; but this should not blind our eyes to its excellence of composition and detail, as in the Composite capitals linked together by well-modelled festoons and in the well-designed balconies. Palladio again makes characteristic use of the flat arch of Sanmicheli, pediments are alternately segmental and triangular, and low windows like Peruzzi's are obtained in the frieze. It is only, however, the immense scale of the Order which enables windows to be obtained here, for Palladio never enlarged the frieze beyond its regulation limit, and in all other cases superimposed the attic on the main cornice.





Alinari

*Palazzo Giulio Porto, or "Casa del Diavolo," Vicenza, Italy
(See measured drawing overleaf)
Andrea Palladio, Architect*

EDITORIAL COMMENT

❖ VOL. LX, No. 3

ARCHITECTURE

SEPTEMBER, 1929 ❖

It has been the experience of all epochs great in architectural achievement, that the science and art of building have run hand in hand, and that it has been impossible to dissociate the one from the other, because the one arises from the other.

H. HEATHCOTE STATHAM



MASTER BUILDER AND ARCHITECT

THE above quotation from Mr. Statham's book, "A Short Critical History of Architecture," suggests a testing of our own epoch by this yardstick. Do the science and art of building run hand in hand to-day? We think not.

Inevitably, it would seem, the architect has gotten farther and still farther away from his building. Specialization and the increasing complexity of his structure have combined to keep him at his drawing-board and specification-desk and away from the work which these control. The unfortunate part of it all is that this widening gap between the means to the end and the end itself must necessarily weaken this control. The design is begun on paper, studied on paper, and finished on paper. It is carried out in its great variety of materials as relentlessly, as undeviatingly, as a railroad time-table. There is less and less opportunity for the rectification of mistaken judgment in the work itself as it progresses. Errors of design, no matter how quickly apparent in the stone and steel, must be carried out to the bitter end. Their lessons may benefit the next job, but not this one.

It is only in quite recent times that the architect has been handicapped by this barrier between himself and his building. Originally, and for centuries through the great epochs of architectural achievement, he was a master builder. The design side of his dual function was expressed in the materials with which he built, not in lines on paper. It would be farthest from our intention to suggest that the great monuments of the past merely grew, without conscious design; the design most certainly was the controlling element, but that design was translated into stone and brick and wood with-

out the dilution and distortion resulting from its having to pass through a paper stage. The master builder made his drawings in the past, it is true, but they were rough notes for his own use, not something to convey to other minds a literal interpretation of his whole thought on the subject. His conception of his task was to produce a building, not merely a set of drawings, which, Heaven and a diverse assortment of workmen willing, would be translated into the language of structure. To accomplish his purpose he lived with his building, not with a corps of draftsmen. He chose and directed the craftsmen themselves, remoulding his design as it grew in the materials. There was not, until fairly recent times, any contractor to come between him and the work itself—any middleman to step between him and the execution of the design that was never fully determined until the last stone was laid and the last bit of carving found good.

We cannot go back to those days and those methods. A hundred years or more ago the single road divided. Along one branch moved the builder; along another branch moved the architect; and the roads have been getting farther apart ever since. The builder has become a contractor; the master builder or architect has become a maker of drawings and specifications. From these instruments men construct buildings—good or bad according to the architect's inherent gifts combined with his ability to translate what is in his mind into lines and words on paper.

We have no remedy to suggest; perhaps none is needed. The tide of circumstance is bearing us along, whether we will or not. Perhaps there is some crossroad to be found, leading us back to the building; perhaps, instead, we can best devote our energies to the development of a new craft—that of making plain to other men the way in which they shall do that which has been taken out of our hands.



We are only just emerging from a period in which historical knowledge, unintelligently applied, has been a distinct drag upon progress in architectural thought.

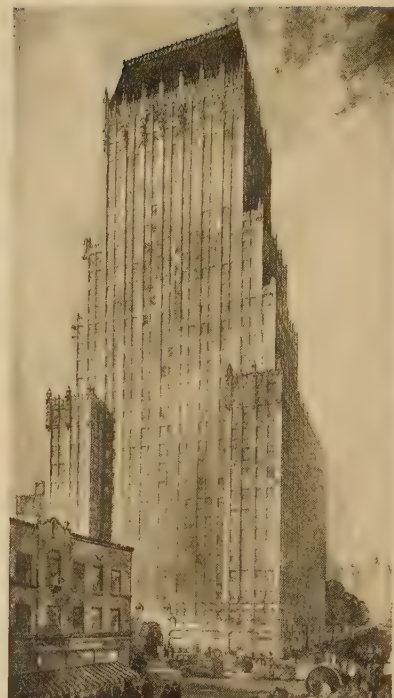
H. HEATHCOTE STATHAM



The proposed William Taylor Hotel and Methodist Temple, San Francisco—a revenue-producing downtown church. Lewis P. Hobart, architect

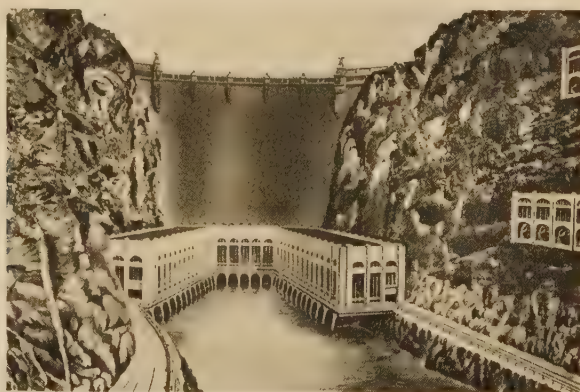


Shreveport, La., is soon to have this Inn Tower Hotel. Jones, Roessle, Olschner & Wiener, architects



Memphis, Tenn., is to gratify its desire for a new skyscraper—the Sterick Building. Wyatt C. Hedrick, Inc., architects and engineers

Architectural News in Photographs



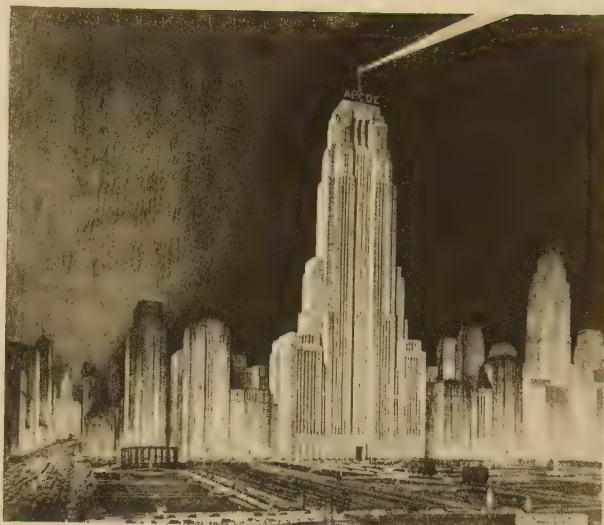
The famous London Terrace on West 23d Street, New York City, as it has long appeared and as it will appear with the building of the London Terrace Apartments. Farrar & Watmough, architects

The proposed Boulder Dam which, after many delays, is to become a fact. Raymond F. Walters, chief engineer, Interior Department

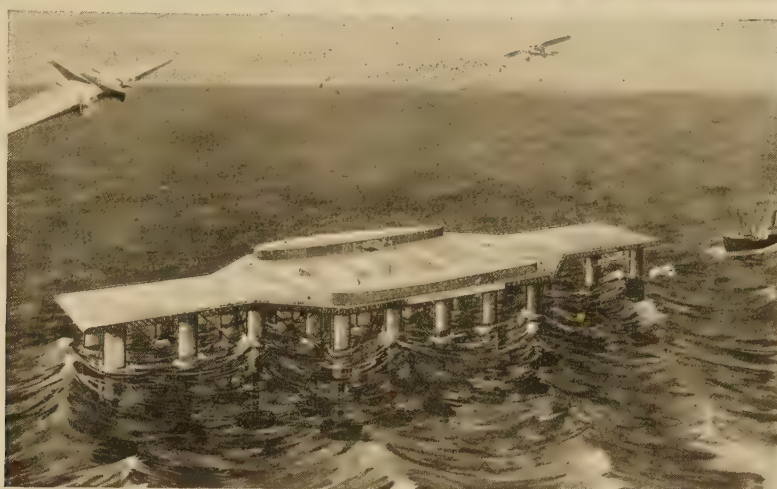




Montreal's new Dominion Square Building. Ross & MacDonald, architects



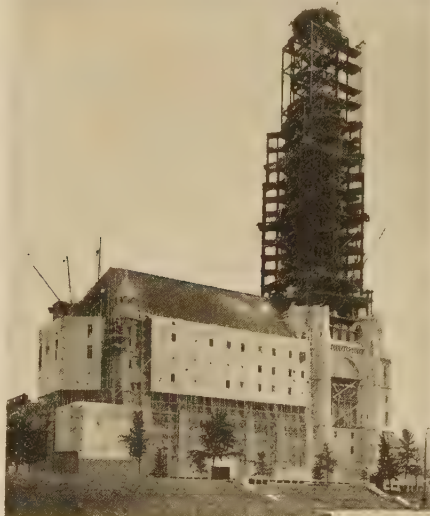
At the moment, what is proposed to be the world's tallest building, the seventy-five-story Crane Tower, Chicago. Walter W. Ahlschlager, architect



The proposed seadrome and ocean hotel, midway between New York and Bermuda. Henry J. Gielow, Inc., naval architects and engineers



The proposed start of a residential district in lower New York City. Thompson & Churchill, architects



A progress photograph of Dr. Fosdick's Riverside Drive Church. Henry C. Pelton and Allen & Collens, associated architects



Another tall building for professional use in San Francisco. Miller & Pflueger, architects

BOOK REVIEWS

MINOR ARCHITECTURE OF SUFFOLK. By DEXTER MORAND. Series I. 12 pages of introduction and historical notes and 48 plates, 9 by 12½ inches. Illustrated with photographs. Printed in England and France. London: 1929: John Tiranti & Company. 17s. 6d.

The first volume of a series on the "Domestic Architecture of Old England" under the editorship of Mr. Morand. In addition to the present volume on the minor architecture, including the small buildings, farm-houses, cottages, etc., another volume will treat of the mansions. The photographs are well taken, but not always reproduced with the sharpness that might be most useful.

SPANISH GARDENS. THEIR HISTORY, TYPES AND FEATURES. By C. M. VILLIERS-STUART. 140 pages and 86 plates, 6¼ by 9½ inches. Illustrated from photographs and drawings, several in color. Printed in Great Britain. New York: 1929: Charles Scribner's Sons. \$8.50.

A volume that carefully avoids duplication of the only two existing books on Spanish gardens—those of the Byrnes and Miss Nichol. The former is confined to Andalusian gardens and patios and those of Majorca. Miss Nichol's book contains more general information, and includes Portuguese gardens. The photographic illustrations, mostly by the author, are supplemented by line drawings making clear some of the more intimate details. The author has succeeded in capturing and transmitting to the reader the actual personality of these gardens, old and new.

VILLA MADAMA, ROME. By W. E. GREENWOOD. 76 pages of text and 29 plates, many in color, 9½ by 12 inches. Printed abroad. New York: 1929: William Helburn, Inc. \$20.

A careful and comprehensive reconstruction of the well-known Villa Madama by a fellow of the Institute of British Decorators. There are ample historical notes, biographies, and a catalogue of original drawings.

THE PRACTICAL REQUIREMENTS OF MODERN BUILDINGS. By EUGENE CLUTE. 232 pages, 8¾ by 11¾ inches. Illustrated with drawings and photographs. New York: 1928: The Pencil Points Press, Inc. \$6.

Mr. Clute has endeavored to bring together, under various chapter headings, the general information that is required in the design of hospitals, nurses' homes, schools, religious buildings, residences, hotels, clubs, apartment-houses, theatres, commercial and industrial buildings, garages, passenger stations, farm buildings, park buildings, libraries, and museums. Naturally, with so large a field, it has been possible to bring together only the essential

needs of plans and equipment. Any one of these chapters, however, will serve to crystallize, in the architect's mind, the problem and the basic information he must have in order to solve it.

EDIFICES DE ROME MODERNE. By PAUL LETAROUILLY. Vol. I. Palais et Maisons. 62 plates, 10 by 14¾ inches. Printed in Great Britain. London: n.d.: John Tiranti & Co. 7s. 6d.

In reviewing this book in the June issue, it was not made clear that the present Vol. I is the first of six volumes. The complete series will eventually constitute, not a selection from the plates, but a complete reprint.

RECOMMENDED MINIMUM REQUIREMENTS FOR PLUMBING. Report of Subcommittee on Plumbing of the Building Code Committee. Revised August 30th, 1928. 280 pages, illustrated with diagrams, 5¾ by 9 inches. Pamphlet binding. Bureau of Standards, Washington: 1929: U. S. Government Printing Office. 35 cents.

This report is a revision of the former report dated July 3, 1923, entitled "Recommended Minimum Requirements for Plumbing for Dwellings and Similar Buildings." The basic principles of the former report are retained, but their application is extended to all types of buildings.

FACTS ABOUT THE STRUCTURAL STEEL INDUSTRY. 128 pages, 5¼ by 8 inches. Pamphlet binding. New York: 1929: American Institute of Steel Construction, Inc. 50 cents.

A valuable compilation, one important feature of which is a glossary of terms.

COLLEGE ARCHITECTURE IN AMERICA—AND ITS PART IN THE DEVELOPMENT OF THE CAMPUS. By CHARLES Z. KLAUDER and HERBERT C. WISE. 301 pages, 217 illustrations from plans and photographs, 7½ by 10¼ inches. New York: 1929: Charles Scribner's Sons. \$5.

Mr. Klauder and one of his partners, Mr. Wise, have performed a tremendous service, not only to the educational world, but to the architectural profession. Their book, resulting from years of study, research and travel among the educational institutions of America, formulates, as nearly as may be, the principles which have come to be accepted as governing the design and relationship of educational buildings. In addition to the chapters on general layout plans, there is a great fund of detail information here regarding the requirements of various kinds of buildings, with abundant illustrations of how these requirements have been more or less perfectly met.



A Pictorial Review of Modern Architecture in Europe



By F. R. YERBURY, Hon. A. R. I. B. A.



*Hotel
George V,
Paris*

*C. Le Franc
and
G. Wybo,
Architects*





Hotel George V, Paris

C. Le Franc and G. Wybo, Architects



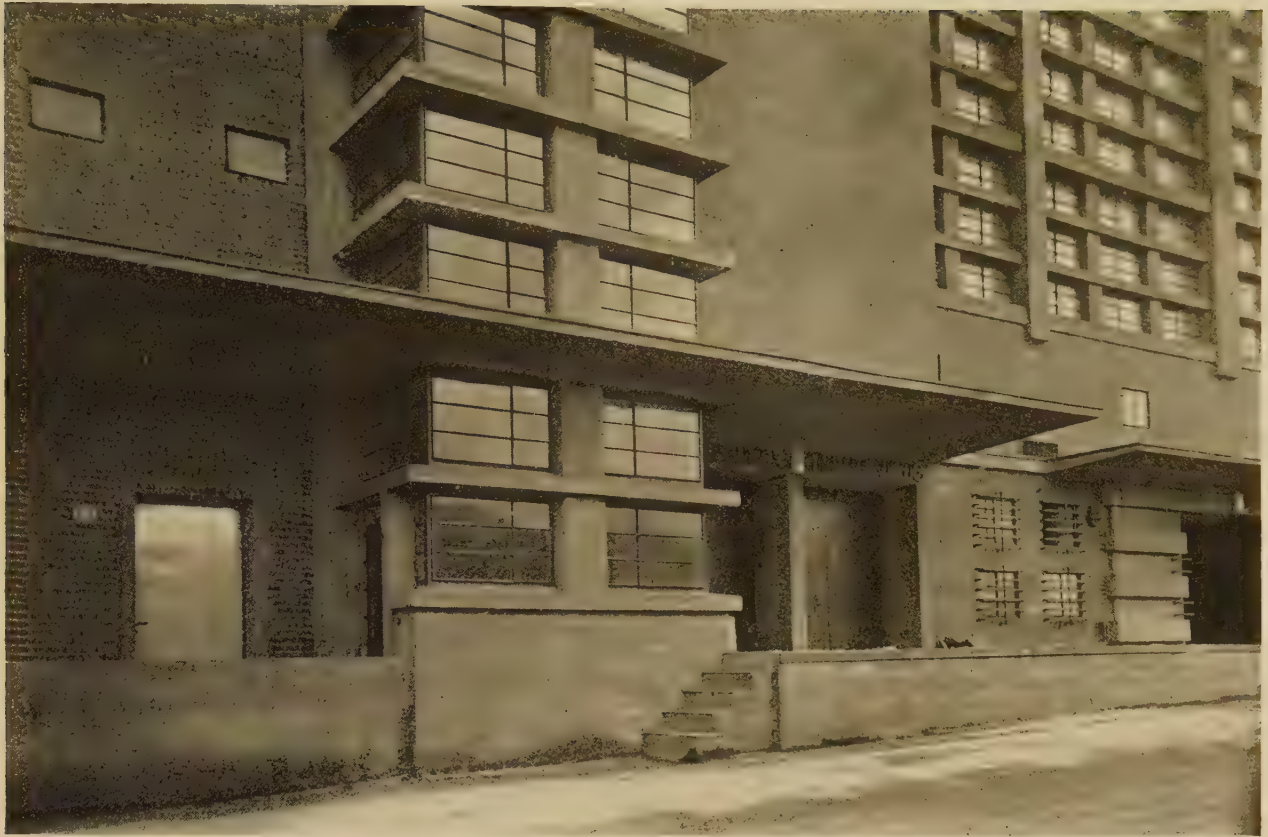
Hotel George V, Paris

C. Le Franc and G. Wybo, Architects



Market and cold-storage building, Frankfort

Prof. Elsaesser, Architect



Market and cold-storage building, Frankfort

Prof. Elsaesser, Architect



Market and cold-storage building, Frankfurt

Prof. Elsaesser, Architect



Market and cold-storage building, Frankfort

Prof. Elsaesser, Architect



First Church of Christ Scientist, Berne



Nigst & Padel, Architects



Photographs by

Padilla Company



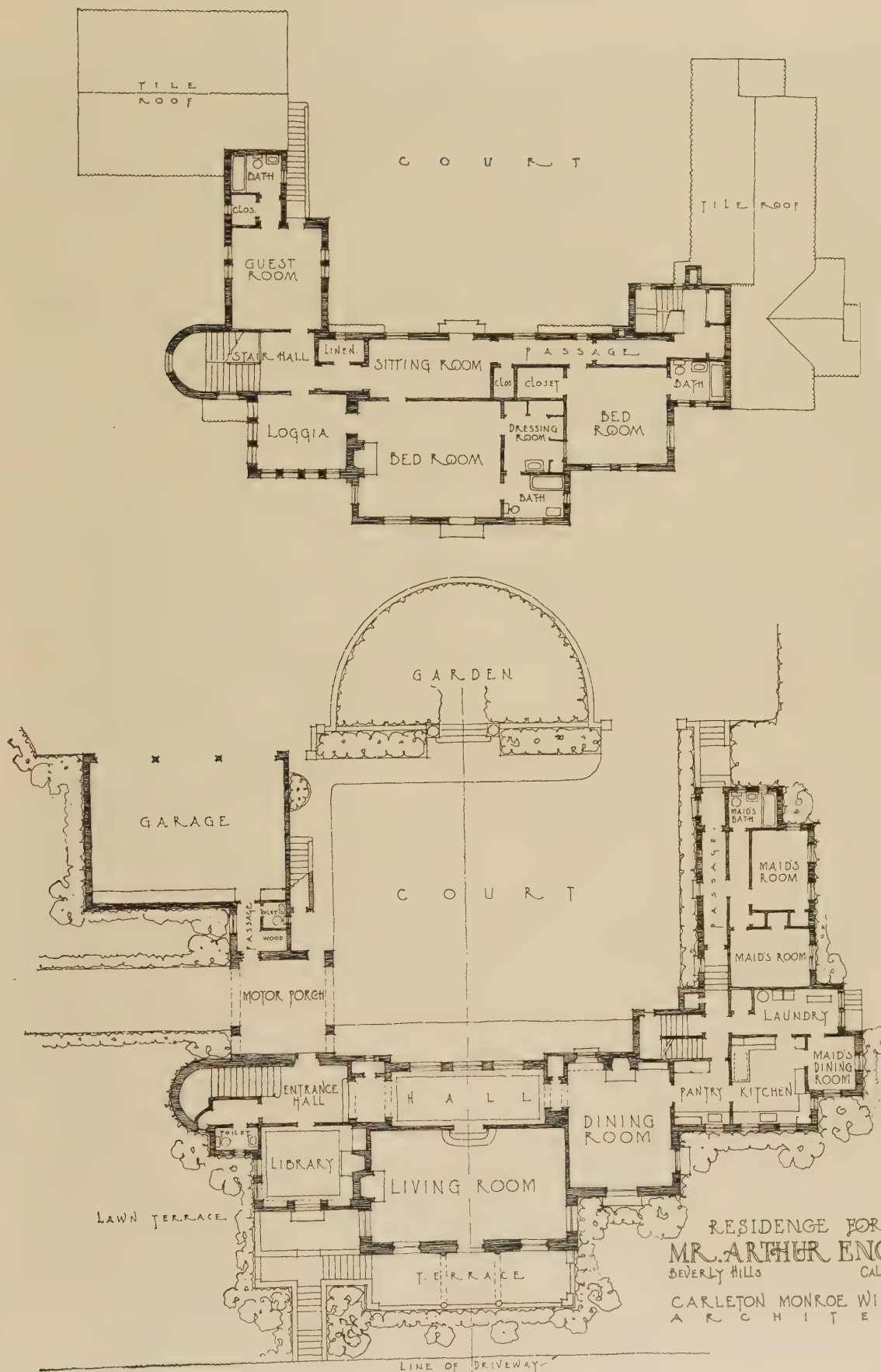
HOUSE OF
ARTHUR ENGLISH,
BEVERLY HILLS,
CALIF.

CARLETON
MONROE
WINSLOW,
ARCHITECT



HOUSE OF ARTHUR ENGLISH, BEVERLY HILLS, CALIF.

CARLETON MONROE WINSLOW, ARCHITECT





HOUSE OF ARTHUR ENGLISH, BEVERLY HILLS, CALIF.

CARLETON MONROE WINSLOW, ARCHITECT



*At right, a capital for a
mausoleum, Congrega-
tional Cemetery,
Brooklyn, N. Y.*



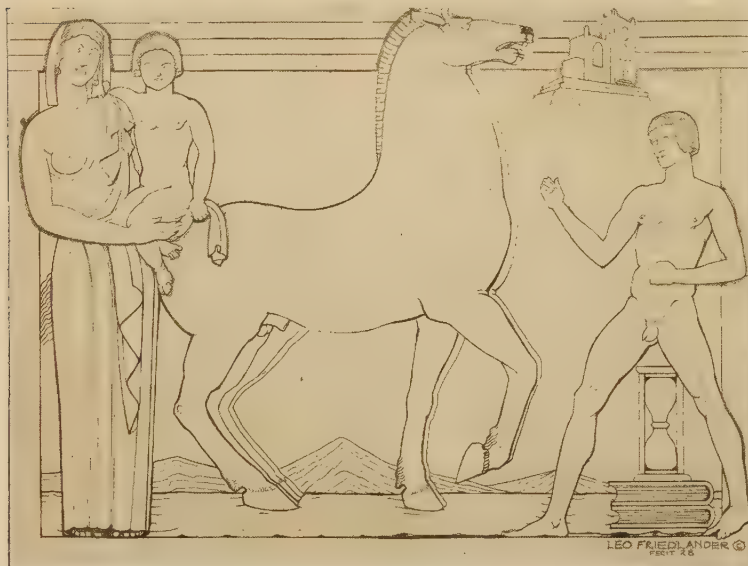
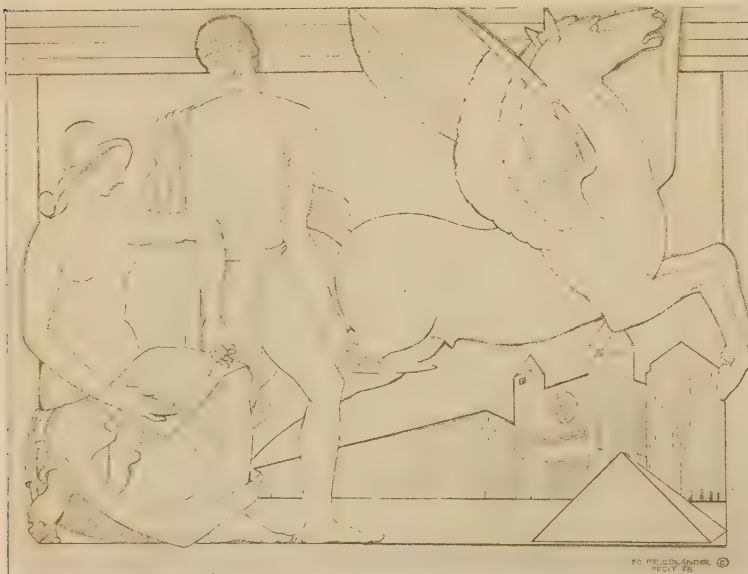
*Below, a crest for an
overmantel, designed
and carved in wood by
Mr. Friedlander*

Some Recent Sculpture by Leo Friedlander





© 1929, Lee Higginson & Co.

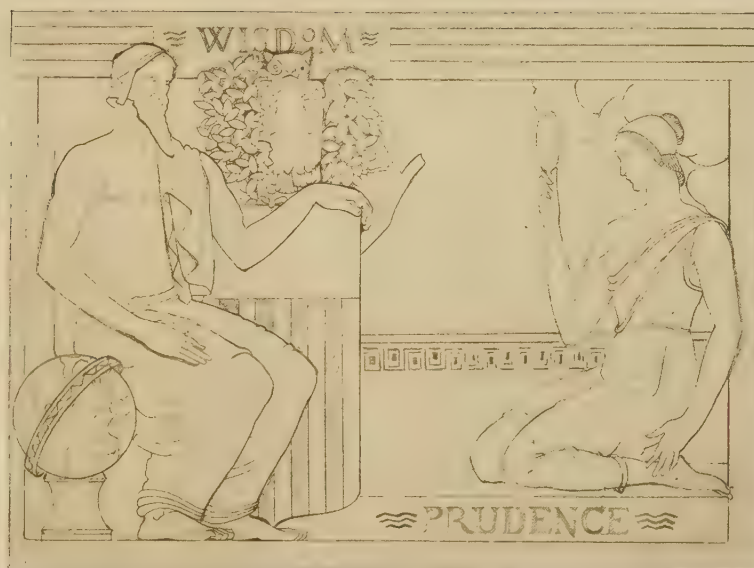
FRIEZE ON THE BANKING-HOUSE
OF LEE HIGGINSON & Co.BROAD STREET
NEW YORK CITY

Mr. Friedlander's method of procedure in the making of low-relief panels, such as these for the frieze of Lee Higginson & Company's building and the panels shown in the June issue for Davis, Dunlap & Barney's banking-house for the American Bank and Trust Company in Philadelphia, is somewhat unusual. His original studies are in the form of pencil drawings, such as those reproduced on these pages. These particular examples measure 12 by 16 inches in the originals. Having secured a composition to his satisfaction, in this form, the next step is to have the line drawing copied photographically and made



© 1929, Lee Higginson & Co.

CROSS & CROSS
ARCHITECTS;
SCULPTURE DESIGNED
AND EXECUTED BY
LEO FRIEDLANDER

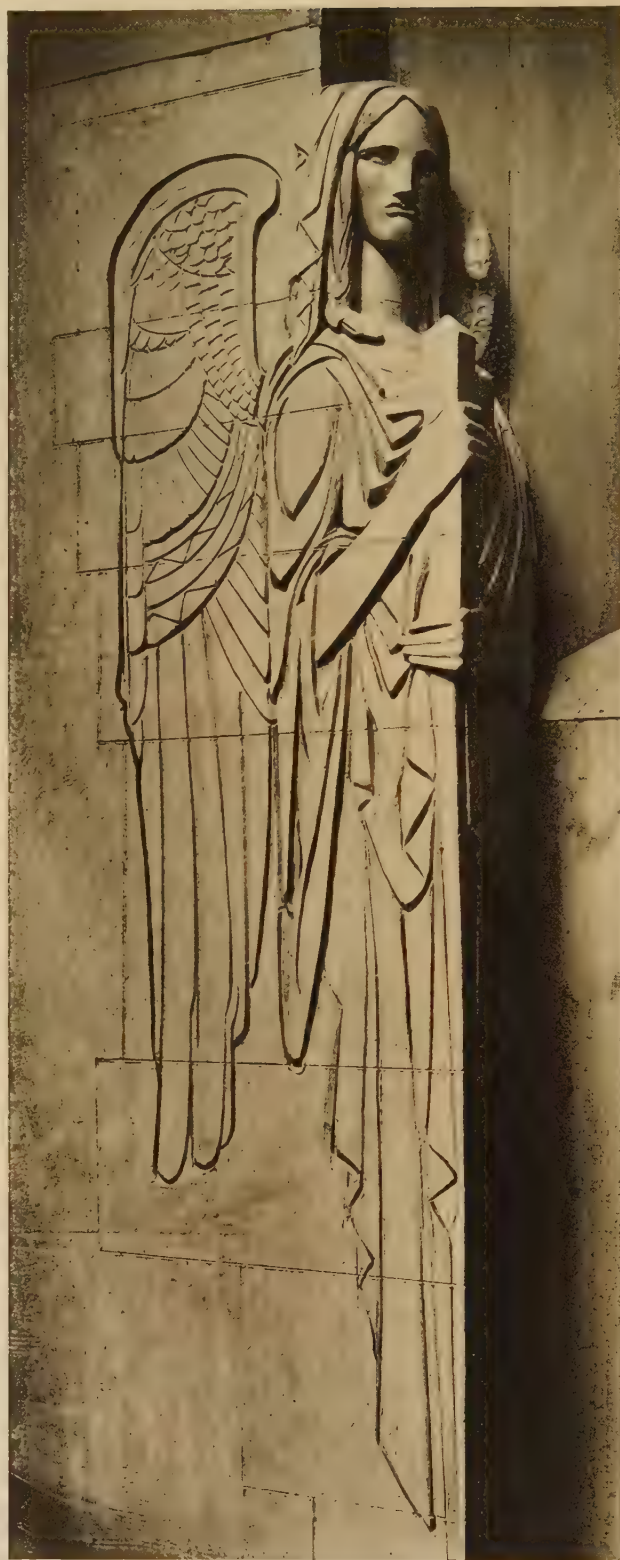


into a lantern slide. The sculptor is then ready to proceed with the second step. Using the slide in a projecting-lantern, he throws the image upon a flat box of modelling clay in the studio and roughs out the masses and outlines. This saves the time usually spent by many sculptors in transferring the design into a larger scale or full size by means of corresponding squares. Once having established the main outlines, the lantern image is abandoned and the work of co-ordinating the various planes and shadow-producing edges is carried forward in the usual manner.





*Models of corner figures for the
baptismal font, Cranbrook Church.
Executed finally in marble*



*Models of figure to be carved from
masonry, "The Seven Churches."
Epworth-Euclid M. E. Church,
Cleveland, Ohio*



Model of figure to be carved from masonry, "The Seventh Church," Epworth-Euclid M. E. Church, Cleveland, Ohio



Models of corner figures for the baptismal font, Cranbrook Church. Executed finally in marble

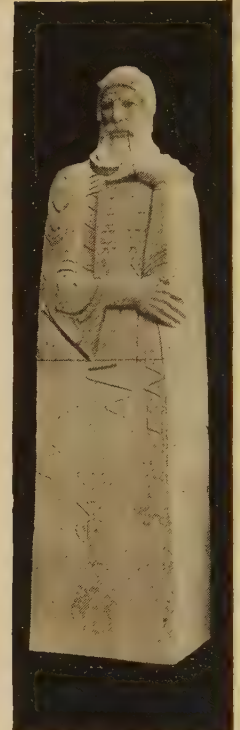


Model of "Angel with a Flaming Sword," to be carved from masonry of a tower corner, Epworth-Euclid M. E. Church, Cleveland, Ohio



The figure of John Wyclif, for Epworth-Euclid M. E. Church, Cleveland, Ohio

Model of ritual figures for Masonic Temple, Detroit, Mich.



Model of "Moses with the Tablets of Stone," to be carved from masonry

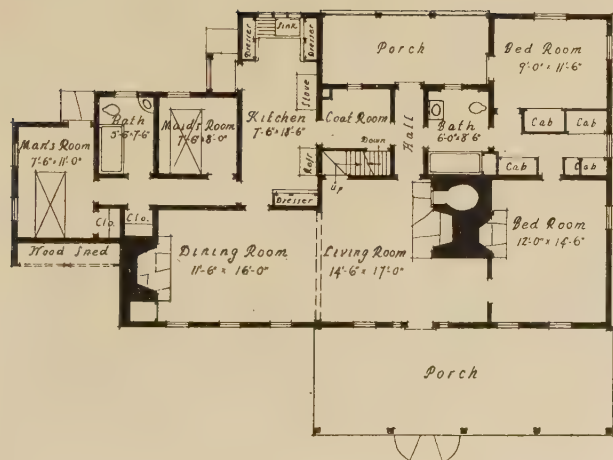


HOUSE OF DAVID PATTERSON
NORTH SALEM, N. Y.
(REMODELLED)

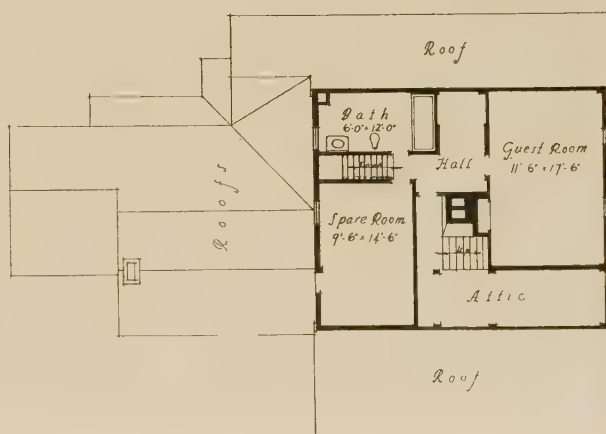
CHARLES S. KEEFE, ARCHITECT

Photographs by Louis H. Dreyer

First-floor plan



Second-floor plan





HOUSE OF DAVID PATTERSON, NORTH SALEM, N. Y.

CHARLES S. KEEFE, ARCHITECT



HOUSE OF DAVID PATTERSON, NORTH SALEM, N. Y.

CHARLES S. KEEFE, ARCHITECT

*Living-room**Dining-room*

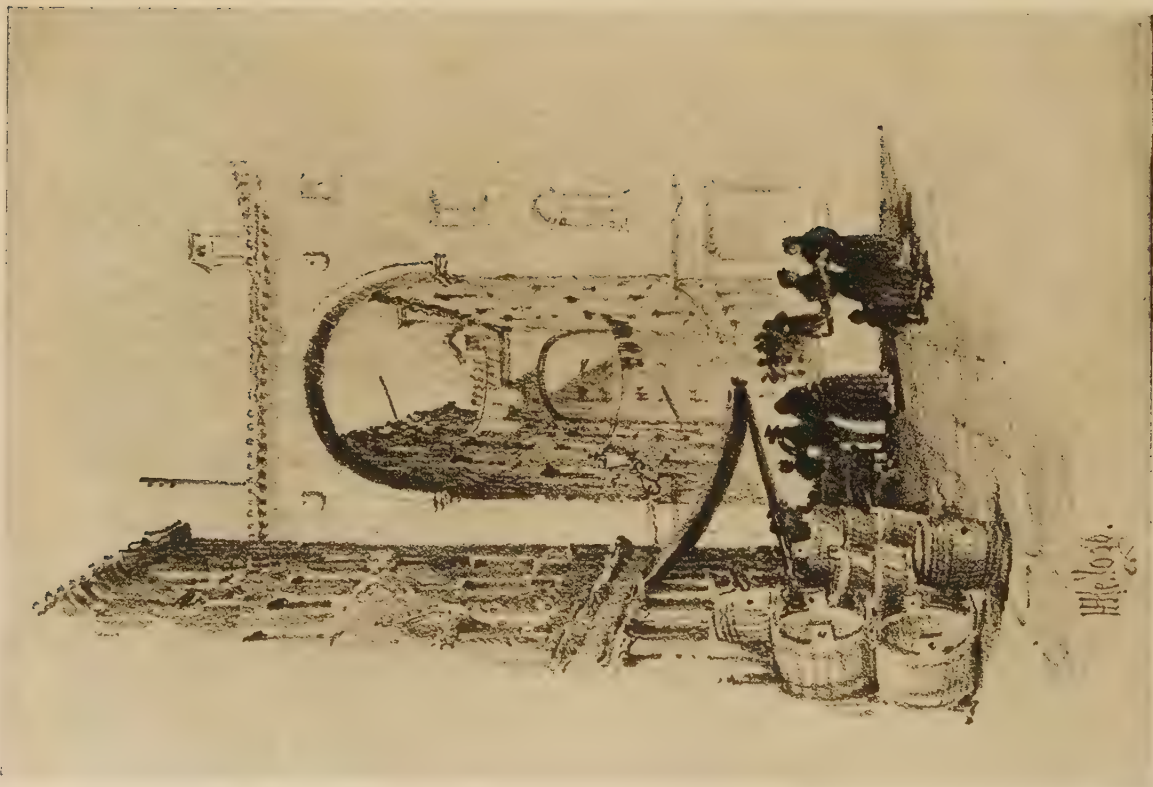
HOUSE OF DAVID PATTERSON, NORTH SALEM, N. Y.

CHARLES S. KEEFE, ARCHITECT

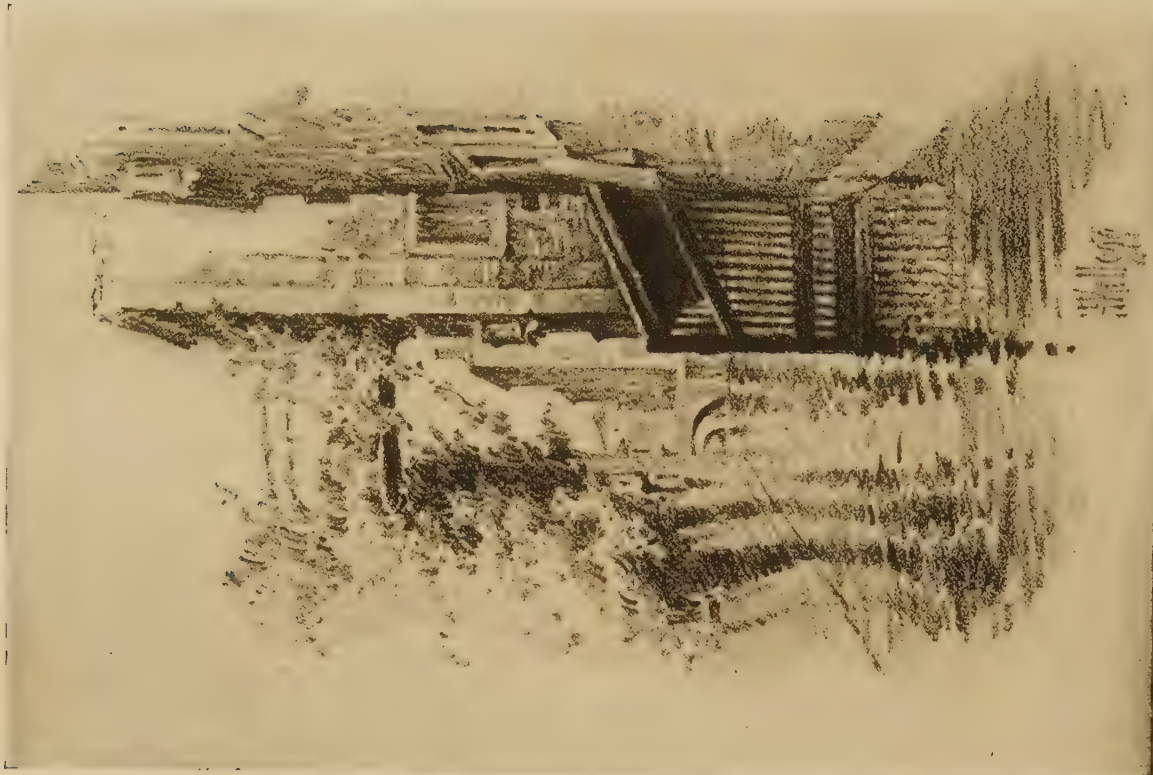
European Sketches by Harold Field Kellogg



Rheims

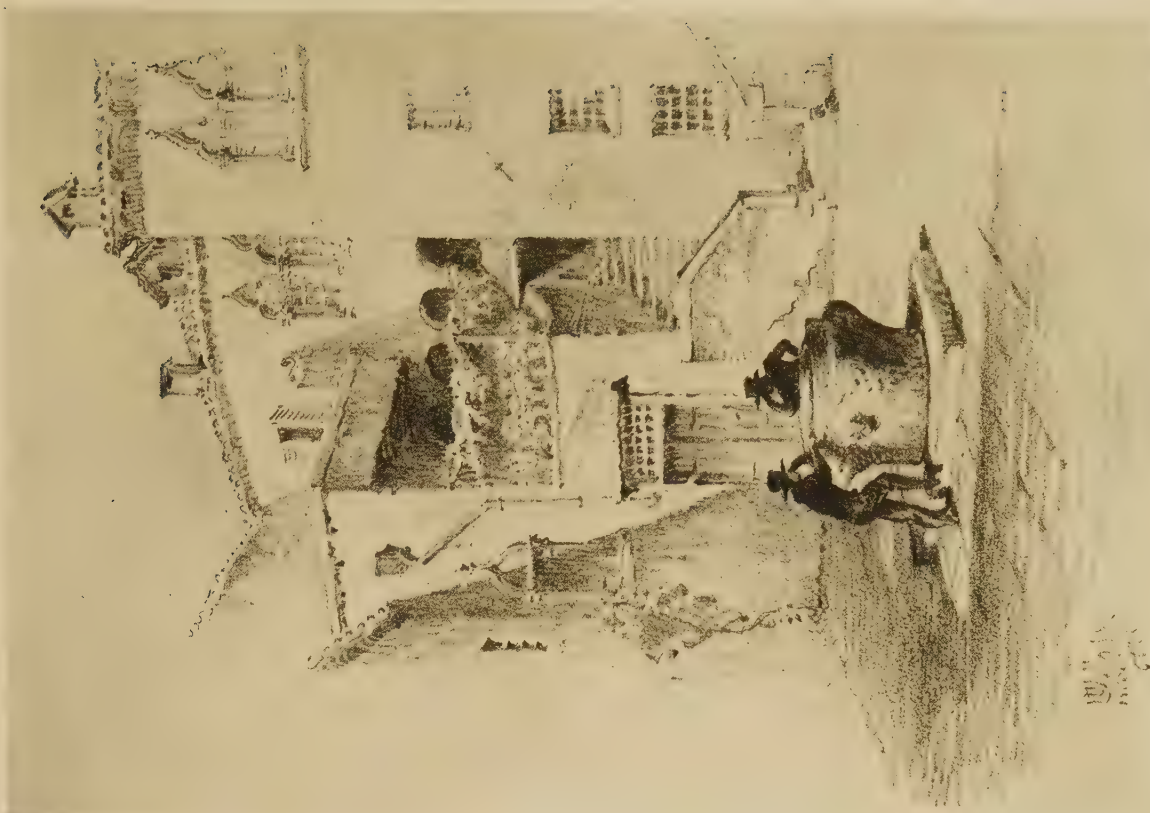


Tub-makers, Venice

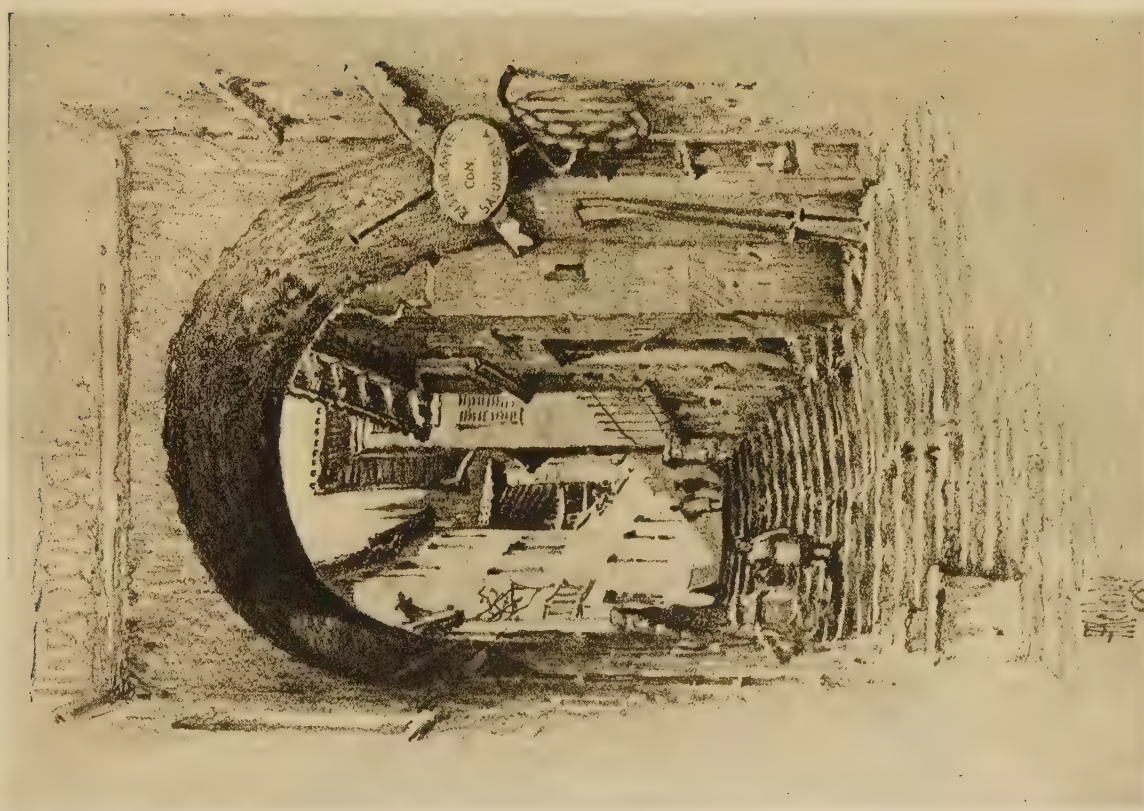


A Venetian garage





A courtyard in Venice

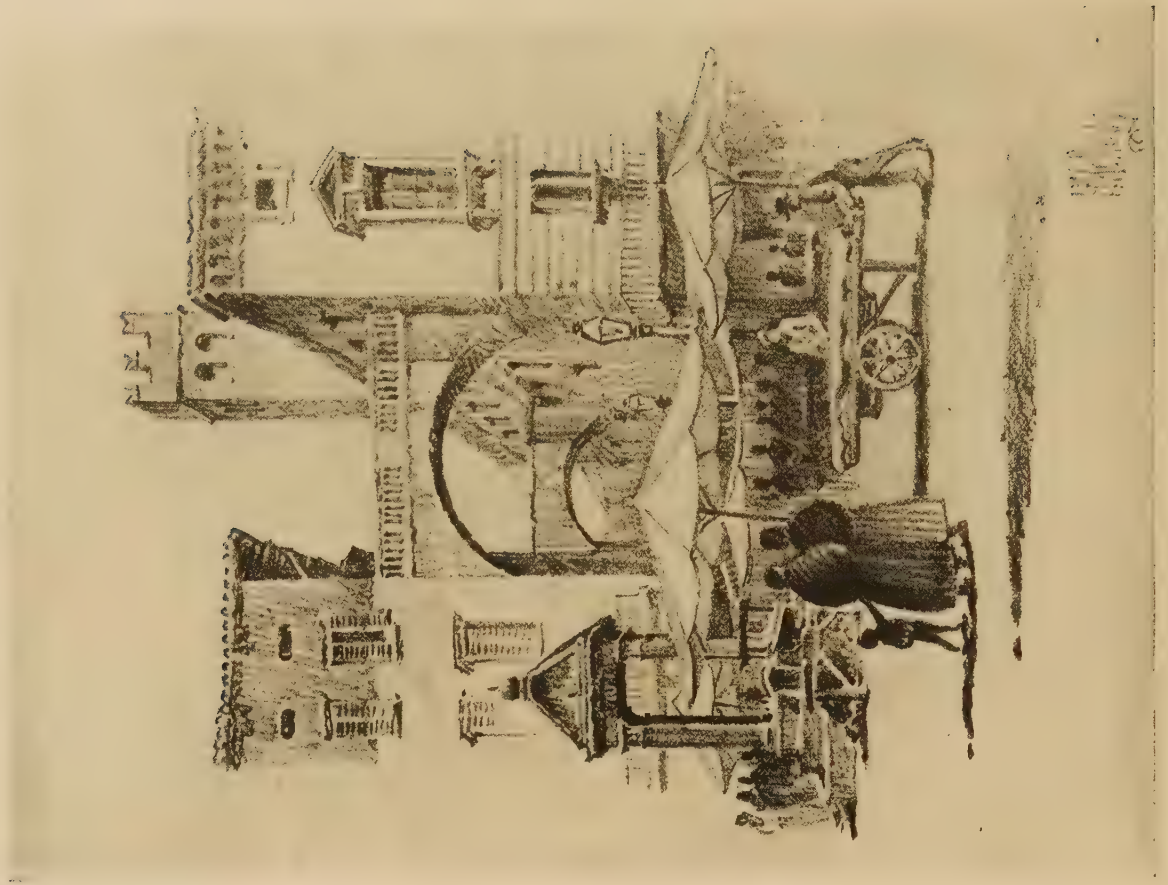


Bellagio, Lake Como





A street shrine, Venice



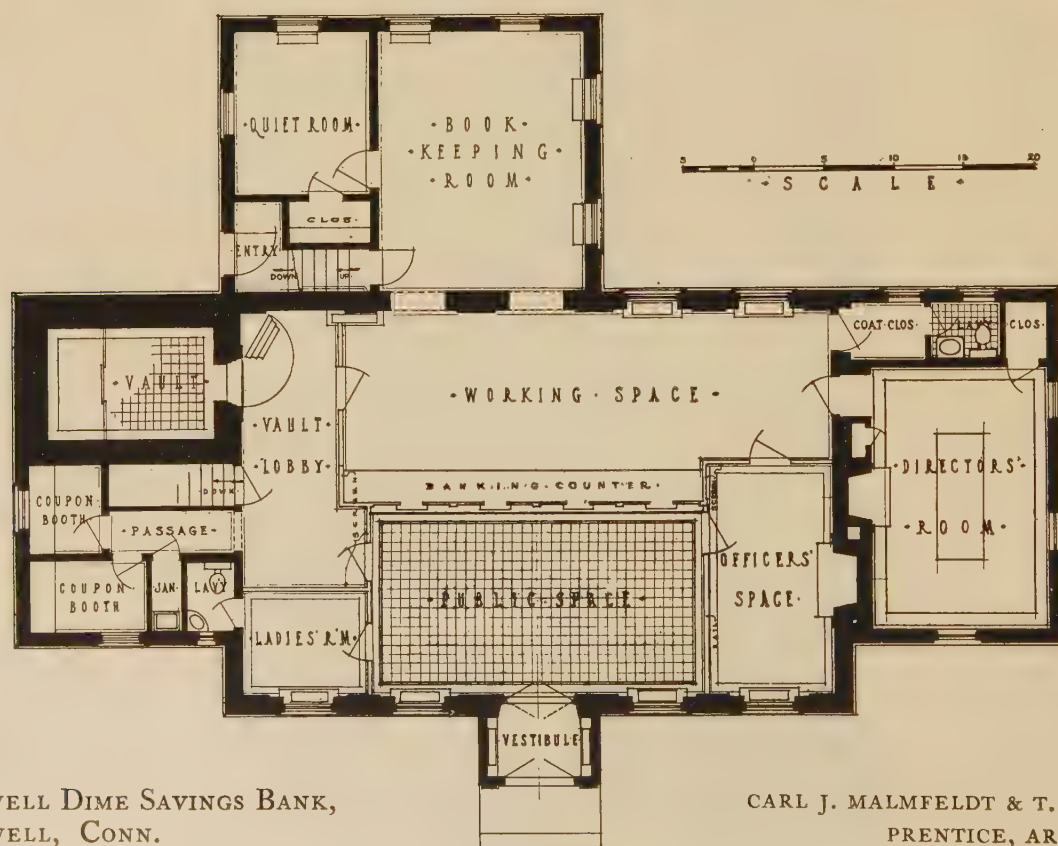
Piazza della Erbe, Verona





CROMWELL
DIME SAVINGS
BANK,
CROMWELL, CONN.

CARL J. MALMFELDT
& T. MERRILL
PRENTICE,
ARCHITECTS



CROMWELL DIME SAVINGS BANK,
CROMWELL, CONN.

CARL J. MALMFELDT & T. MERRILL
PRENTICE, ARCHITECTS



The Architectural Clinic

ON DOMESTIC HEATING IN GENERAL
THE DINING-ROOM IN PARTICULAR



THE red-nosed mica stoves of our early remembered days and the gas grates of England offered vexatious problems in the successful decoration of a room, in one sense worse than our present radiators, and in another sense not nearly as serious. Not as serious—simply because they did not begin to compete with antimacassars, Victorian bric-à-brac, and the imitation wood graining of the golden-oak age. Actually, of course, the meek but efficient radiator is not nearly as accursed by the Furies as either coal stove or gas grate, and who knows but that some inspired modernist may soon design the radiator along the lines of a Swedish church façade and make it a thing of rare and intriguing interest. In the meantime, however, the poor appearance of the radiator is ever with us, and its camouflage is a matter of greater and greater concern as our decorative consciousness becomes more and more acute.



In this country we have tried with a fair degree of success (and expense!) to hide the radiator in a deeply furred panel with only apologetic grilles showing in the baseboard and at the ceiling. The English are going even further by imbedding small-diameter pipes arranged in long coils behind the lath and porous plaster of all exterior walls, thereby making the entire wall serve as a radiator. The difficulty is in insulating the outside of the wall to prevent leakage, and in keeping up the fire vigilantly, because for the house to cool with a low temperature outside would require patient waiting before the interior again became comfortably warm. In the milder climate of Britannia the system is said to work rather well; certainly it has all the advantages of a heat which is felt and not seen. Just what the owner does in case one of the little pipes springs a leak and artistically traces a map of the Yangtze River on his newly decorated drawing-room walls, is not contained in the descriptive data.

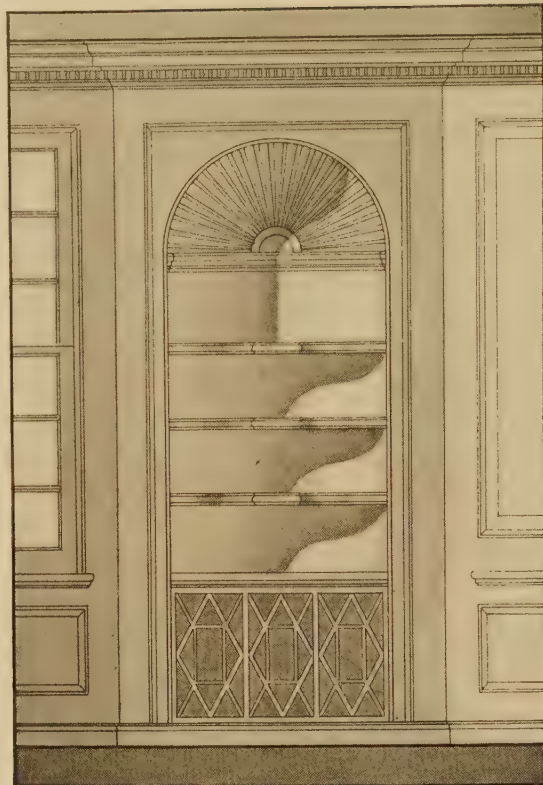
For the majority of us, with grouchy and not overly prosperous clients, the old snub-nosed, dour radiator must suffice. The rank and file are “painted into the wall”—theoretically; the lieutenants have shelves with hangings over them; a few field officers in the main rooms are sufficiently important to earn grilles. A *parti* for the dining-room is to have two corner cupboards bridged by a seat between, under which functions a radiator with an enclosing grille, but unfortunately there is considerable floor space sacrificed. After seeing some hot-water systems which work contrary to all the laws of tradition and common belief, we wonder if it would not be both possible and profitable to have corner cupboards, *à la* the one from Bath shown in the accompanying photograph, at forty-five degrees to the right-angle walls. Then, instead of divorcing the radiator and making it stand grimly alone, it would doubtless be more happily housed underneath the cupboard, as in the drawing.

Such a procedure, according to the inexact science of architecture, would be a first-medal solution, but according to the tenets of the exact science of heating, it would be guilty of malfeasance. China and not window glass would be above the radiator, true enough, so that as each chilly molecule of air jumps off it will not be warmed as quickly as though mildly thwarted by a watchful radiator. However, if it be a choice between sacrificing a few shovels of coal on particularly cold days, as compared to saving the valuable footage in front of the window and housing the radiators where they are least obtrusive, why not a loud huzza for the latter? Actually it cannot be the frightful sin that heating engineers profess, in the light of all the rooms made thoroughly comfortable by fireplaces on the inside walls. Not only is this still the usual method of keeping warm in Europe, but in our own homes in spring and autumn, when it is less trouble to start the hearth than the basement boiler. With weather-stripped windows there must be permissible occasions when a radiator can be shifted from





Left, a corner cupboard from Bath; and, on the right, a suggestion for camouflaging the radiator in its base



a window position to improve design, without sacrificing too much coal.

In this happy era when old theories rumble and sometimes topple, perhaps some of the old rules of radiation may be found to require a little revision. For example, a friend whom we knew when he worked in several of the offices of the mighty in New York has now bought a fifteenth-century thatched cottage in Essex within commuting distance of London. When he decided to install a hot-water radiator system, he found that a certain type of boiler would serve the kitchen as a heater, supply the bathroom with a vast series of coils for drying towels (he takes an icy plunge every morning—or says he does), and heat one radiator in each room. There was no basement, and the floors were tiled directly on the ground and at varying levels, depending upon the whims of the various parts of the house which were spasmodically added over several centuries. Worst of all, the kitchen floor was above the others, so that the “return” to the boiler was about midway up the height of the drawing-room radiator. According to all that he practised in New

York, the system could not possibly function with any degree of efficiency, and was not even worth considering. But a local plumber, who was not properly awed by the exact science of radiation, installed the system and it works perfectly. There must be a perfectly good explanation which most of us were never told, as well as other liberties we can assume with taken-for-granted golden rules, and still not affect the humor of a heating system.



It is said that Edison would not have succeeded with countless ventures had he been academically trained to recite the absurdities of attempting to defy certain established laws of physics. We cannot but wistfully hope that architects may do likewise with the mysteries of heating and ventilation, and apply the ingenuity which has lately characterized so many fresh designs, and make the radiator the willing servant and not the ugly master of a decorative scheme.





ARCHITECTURE'S PORTFOLIO OF BELT COURSES



CASS

GILBERT

BAKEWELL &
BROWN

CHELTENHAM,
GLOUCESTERSHIRE





ANDREW J.
THOMAS



DELANO &
ALDRICH

NORTHANTS



ENGLAND

CROSS &
CROSS





DWIGHT JAMES
BAUM



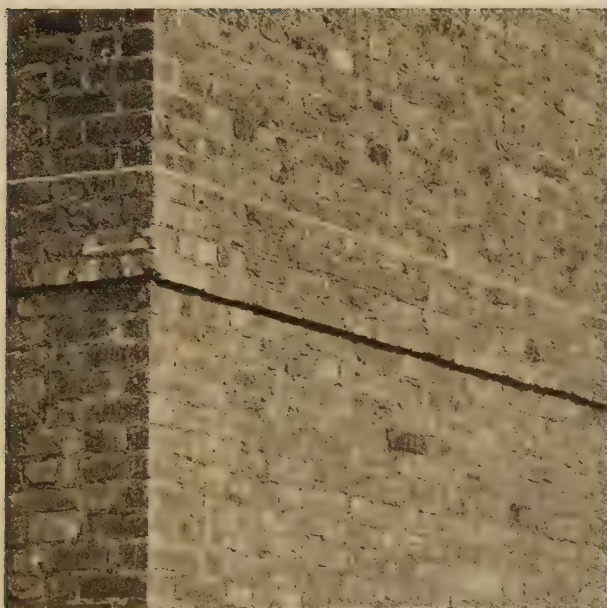
DELANO &
ALDRICH

AYMAR



EMBURY II

A. WINTER
ROSE



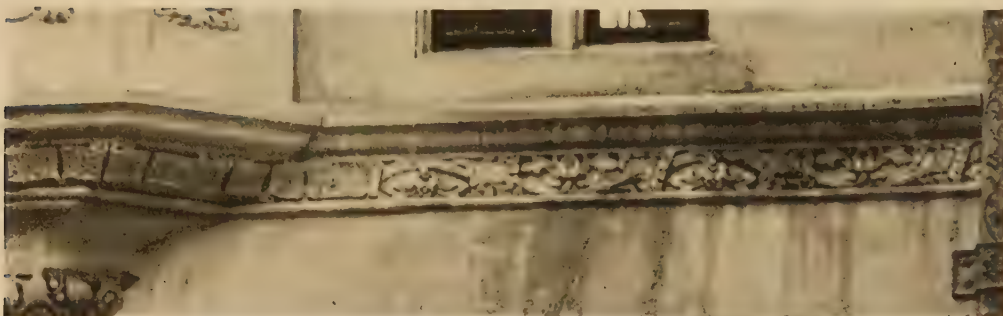
D. KNICKERBACKER
BOYD, CONEYS & ABEL





ARTHUR LOOMIS
HARMON

JAMES GAMBLE
ROGERS



EDWIN T. HALL,
E. STANLEY HALL

KILHAM, HOPKINS
& GREELEY



DELANO &
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CROSS &
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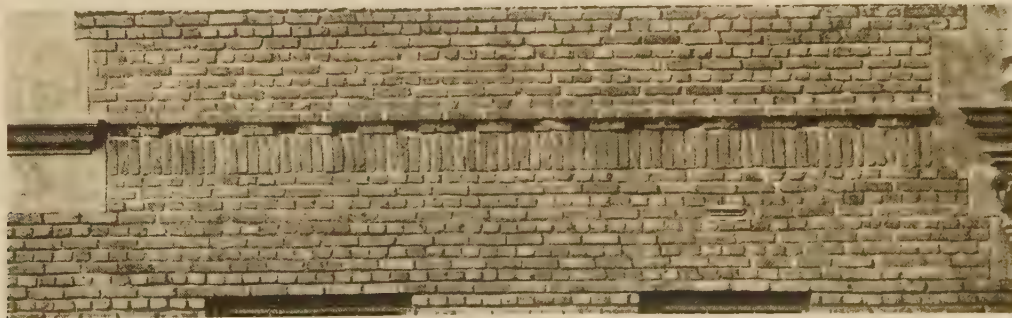
FRANK GOODWILLIE,
WESLEY S. BESSELL

WALKER &
GILLETTE



JAMES GAMBLE
ROGERS

ANDREW J.
THOMAS





FRANK ASHBURTON MOORE



LEWIS C. ALBRO

BAKEWELL &
BROWN

WESLEY S. BESSELL

BENJAMIN
WISTAR MORRIS



WILLIAM F. KOELLE



YORK & SAWYER

CARRERE &
HASTINGS



LEIGH FRENCH, JR.
H. D. EBERLEIN



JAMES GAMBLE
ROGERS





ROGERS & ZOGBAUM



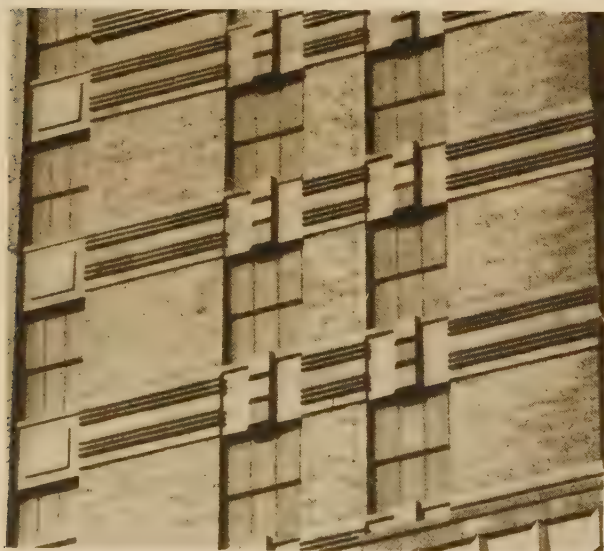
CHIPPING-CAMPDEN, GLOUCESTERSHIRE



CHARLES B. MEYERS



WALTER S. SCHNEIDER



BUCHMAN & KAHN



HERTFORD, ENGLAND

Friday, July 5.—Awoke in Baltimore, and, after a round of calls upon Edward Palmer, Robert E. Lee Taylor, Addison F. Worthington, Lawrence Hall Fowler, and others who were not to be found at their offices, hired a car to explore the city's northern suburban fringe.

For a generation or two, Philadelphia has held, almost unquestioned, the distinction of possessing America's most beautiful suburbs. To-day it has seemed to me that Baltimore's Guilford, Homeland, and Vernewood—all of them outgrowths of Roland Park—have definitely taken the lead. These suburban communities show an amazingly high plane of excellence in the detached dwelling of moderate size. For an almost universal good taste, for an understanding use of material in combination, for variety of mass, color, and detail without conflict, for dignity and restraint without sacrifice of charm, the more recently designed houses of Baltimore's suburbs deserve a First Medal.

Saturday, July 6.—Found evidence of a successful solution of a common problem—the painting of brick, stone, and blocks of concrete or cinder concrete. There are numerous examples here in Baltimore where such painting has not only given the desired effect in appearance, but has also made the masonry tight against the most severe tests of driving rains. In these columns it is not seemly to mention the names of commercial products, but to those who are interested I will gladly pass on the information upon request.

Enjoyed seeing Lawrence Fowler's War Memorial again; his understanding use of Greek forms in a consistent twentieth-century manner is very satisfying. John Russell Pope's Art Museum is nearing completion—a bit cold, it seems to me, without the living quality of his usual work.

Motored for miles in and out of the winding roads of the residential suburbs, marvelling at the variety and consistently high standard maintained. Into a sleeper again for Roanoke.

Sunday, July 7.—Spent an interesting day with Major Tinsley and Robert Allen, first in an inspection of the process of making sand-molded bricks, later in discussion of Mr. Allen's researches into the big question of just how much of an architect was Thomas Jefferson. Motored throughout the country about Roanoke and Salem, and finally into a train for Lynchburg and there into a sleeper for Atlanta.

Monday, July 8.—Found Mr. Hal Hentz in his office and learned from him what is new in and about Atlanta. Mr. Collock of his organization motored me through the city and about the particularly well-favored natural settings in which the Atlantans have their subur-



The Editor's Diary



ban homes. Called upon William J. Sayward and reminisced with him of our days together at Massachusetts Tech in the reign of the great Despradelles. missed Mr. Smith, of Pringle & Smith, who also are doing much of the new work here. Once again into a torrid lower berth for Birmingham.

Tuesday, July 9.—I nominate, as this country's most misunderstood city, Birmingham, Alabama. It does seem as if Octavus Roy Cohen and the late Oscar W. Underwood should have done better by her. "The Pittsburgh of the South, another industrial centre bristling with blast furnaces." That might pass as the average man's idea of Birmingham, and nothing could be farther from the truth. Here is a city of a quarter million, twenty-five miles long by three miles wide. There must be a lot of industry here, for the city is fabulously wealthy, but they don't rub your nose in the soot. To the casual visitor it is a vast country club district (even Kansas City's section of that name pales beside it) spreading up the adjoining ridge and over into the next valley. Winding roads, beautiful woods, houses of brick and many kinds of stone, but seldom of wood, unusually skilful landscaping, and a fair to high average of architectural merit. There are no level building sites, which helps to explain both the architectural and landscaping skill that is called in as a matter almost of necessity. What Birmingham needs is to be resold to the United States on the basis of beauty rather than of industry.

Wednesday, July 10.—Found New Orleans very little changed with the passing years. The Old Quarter remains pretty much untouched by the tide of modern business flowing up and down Canal Street. Modern "improvements" have made little headway among the solid mass of brick and frame buildings that throw out their upper porches and balconies in the protection of lace-like cast iron work, giving the pedestrian shade from the hot sun and protection from the frequent showers as well.

Thursday, July 11.—Called on Mr. Favrot, Mr. Armstrong of Armstrong & Koch, Mr. Goldstein and his associate, N. C. Curtis, recalling with Mr. Goldstein the days of Despradelles at Tech. His American Bank and Trust Building shows the effect of the great Frenchman's teaching—"No ornament at the bottom, only at the top, like a lady." A final dinner at Antoine's—one of the really great restaurants in the world—and on "with the course of Empire westward" to Houston, Texas.

Friday, July 12.—Houston takes its own medicine—the oil and gas which have produced its great wealth—so its air and its buildings alike are unpolluted by smoke and soot. The new Gulf Building, nearing completion, shows, in conjunction with its base of artificially rusted limestone, an unusual use of what at first glance seems to be bright bronze, but which is cast iron covered with aluminum foil and then toned down with successive applications and wipings of a glaze. It is an eight-coat job in all and would seem to leave the metal well protected for a considerable period. Kenneth Franzheim and J. E. R. Carpenter of New York designed the building with Alfred C. Finn the local supervising architect.

Mr. Birdsall P. Briscoe motored me through Houston's extensive residential environs. A rather high average of architectural merit prevails, with some excellent high-spots by Mr. Briscoe, John F. Staub, Harrie T. Lindeberg and Frank Forster, the latter two practitioners considerably off their New York home grounds.

Here endeth the one-day and two-day stands for a while, as I'm off to see some architecture that was old before the beginnings of the Christian era—the cliff-dwellings of the New Mexico mountains and high plateaus.

Sunday, July 14.—Arrived at Albuquerque, N. M., after a rail journey of two nights and a day. By motor stage to Santa Fé, with an afternoon in which to inspect the distinctive architecture of timbers and adobe which has prevailed here since the Spanish occupation. Adobe, as is well known, is a brick molded of mud and straw, and baked in the sun. Naturally, it isn't a particularly sanitary product, especially when the maker employs manure for his fibrous element instead of the more expensive straw. It does make a wall that protects from either heat or cold, and, if properly cared for, it lasts for centuries.

Having been baked by the sun, spread flat on the ground, first one side up then the other, the "dobies" (the ones I measured were 3 x 8 x 16 inches) are laid up in a wall with mortar of the same mud, and less, if any, straw. Apparently the mason pays little attention to filling

the vertical joints, for after a wall is laid one can see through the thin verticals. His exterior plaster, again of mud and straw, serves to fill these joints and incidentally to perfect its own grip on the surface. Preferably, a new 'dobe wall is allowed to stand for six months or more before plastering, giving it time to complete its shrinkage and dry thoroughly.

Found a house being given its first interior plaster. Two kinds of dirt were screened through $\frac{1}{4}$ -inch mesh into a mortar box. One was evidently more rich in clay, the other in white sand. These were hoed together, water added, and the straw scattered over the mixture and well hoed in, just as cattle hair is used in the East. This plaster was put on the walls in two coats, the first one roughly trowelled to a clinch upon the 'dobe; the later coat, in which "white dirt" only was used, was thinner and was brought to a level with a float. Usually these inside walls are left untouched; sometimes they are white-washed, occasionally papered.

The roof is a flat one. Round poles, from which the bark has been stripped, are laid across the walls, frequently projecting beyond the outside faces. The wall is then carried up around and over these beams to a low parapet. Boards are laid across the beams (formerly, a snug layer of small saplings was used), made tight with tar paper, which is carried up the inside of the parapet, and a layer of dry dirt, four inches thick, forms the top of the roof.

Exterior plastering needs renewal about once in four years; with this protection the walls last indefinitely.

In the larger buildings the Santa Fé 'dobe style is being simulated by walls of terra-cotta or cinder concrete blocks, stuccoed with cement plaster.

Monday, July 15.—By motor to Taos, seventy-five miles to the north-east, where is to be found one of the best examples of the Indian Pueblo. Here are two great communal dwellings, America's first apartment-houses, one five stories high, the other seven stories, each house containing some three hundred rooms. Here is perhaps the first "set-back" in housing. They are "co-ops" in a way, as each room is owned by a family and is passed down the female side of the family. If a family dies out its room or rooms are henceforth abandoned. There are no steps; trapdoors and ladders serve instead. Nearly every room has its own fireplace.

These Pueblo Indians, of course, are distinctly unlike the nomadic tribes. They are and have always been an agricultural people, loving peace, and without implements of war excepting rather inadequate ones used in defense against the Comanches and other predatory nomadic tribes. The necessity for defense probably developed the communal

type of housing. Here at Taos the two houses are long and terrace down on all four sides. Elsewhere they have been built around a square, terraced only inside and presenting a formidable blank wall of some height to their enemies. Their walls are of stone, plastered inside and outside with the 'dobe clay. 'Dobe brick were unknown until the Spanish brought in the process. Where gypsum is plentiful the exteriors are brilliantly white; here at Taos they are the color of the local clay. Incidentally the women are the builders; I found one squaw repairing a fireplace, but, like all of her people, she was extremely camera-shy.

Tuesday, July 16.—Taos, aside from its pueblos, has a colony of artists who paint the many interesting phases of life in the Southwest. Only four days ago Robert Henri, one of the most widely known, passed on to his "brushes of comet's hair."



Door, Santa Cruz Church

Wednesday, July 17.—Motored back to Santa Fé and off north some forty-five miles to Rito de los Frijoles, "Creek of the Beans." It is a canyon with precipitous walls of tufa, or volcanic ash. In this wall are many air holes, and it was an easy and natural thing for the Pueblo Indians to utilize and enlarge these for shelter. They found obsidian, a volcanic glass, at hand which would cut the soft tufa. It was but a short step from this primitive burrowing to the piling up of broken tufa to form outside extensions to these first shelters. Holes were cut into the rock in horizontal rows, making sockets for the ends of timbers which formed projecting roofs when covered with branches, grasses and clay. There are evidences of this construction in two

and three stories, each terraced back—far distant forerunner of the pueblo itself.

Still later—and this is all far back of recorded history, centuries before the coming of the Spaniard—these people built a communal house on the floor of the canyon, a house planned in roughly circular form, built of broken tufa laid in clay mortar, six stories high—a home and a fort for six or eight hundred people. Here they lived secure from any enemy, planting and tending their corn and squash and beans. The inner court of that communal house, of which only the foundations remain, was five hundred feet in diameter.

Thursday, July 18.—Motored back to Albuquerque, railroad and trading centre, with little in its residential section to interest the architect.

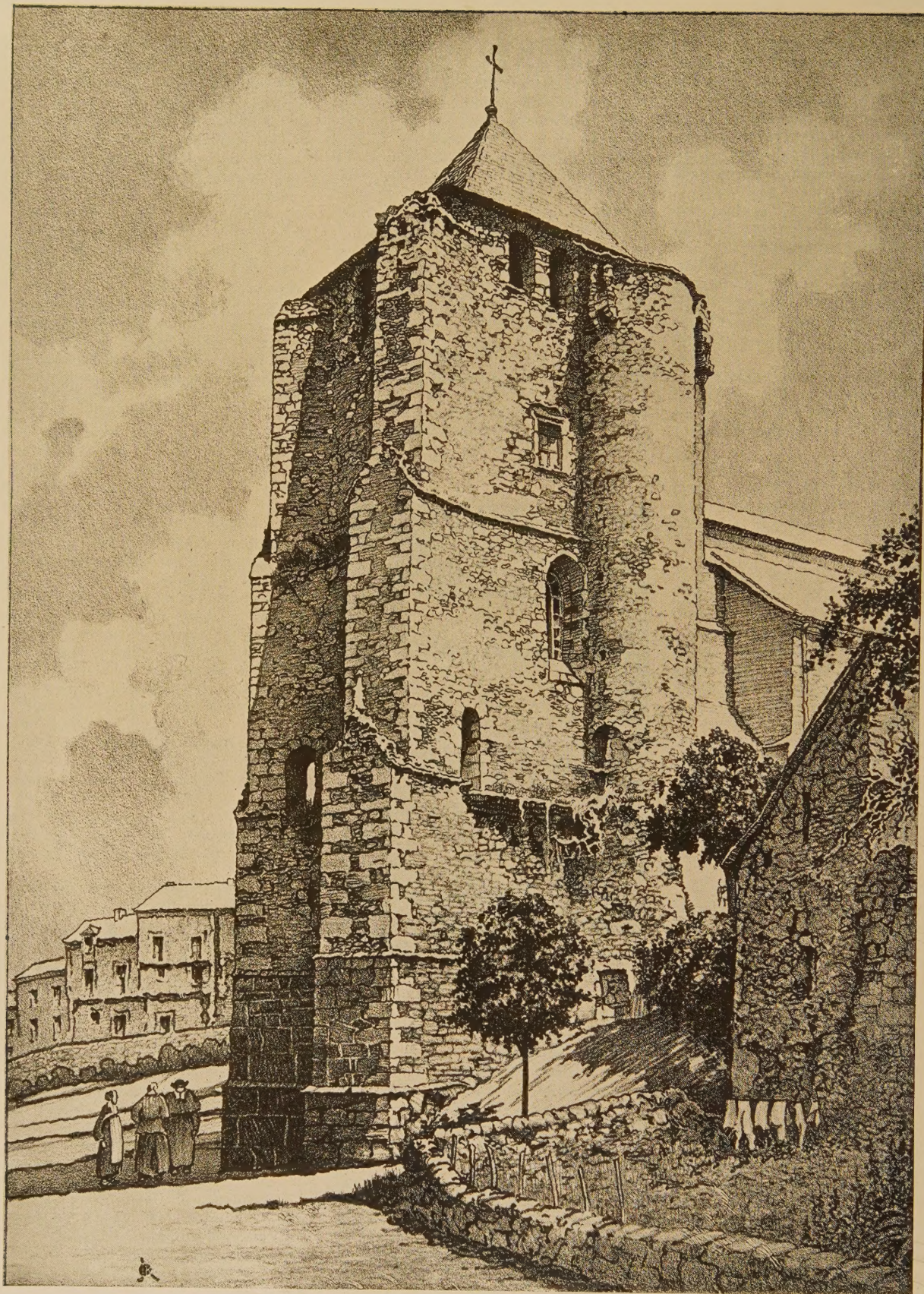
Friday, July 19.—Off West once more, in heat that fairly blisters, yet which, because of its extreme dryness, seems far less uncomfortable than New York's humidity.

Saturday, July 20th.—Arrived at the Grand Canyon of the Colorado, and, having seen it heretofore only from the top rim, explored its depths on mule-back. Its depth from rim to river is something less than a mile, to descend which one traverses about six and a half miles of trail. So far as I know, no one has succeeded in describing the Grand Canyon either in words, or by lens, or on canvas, so it may be as well for this Diary to remain innocent of any futile attempt to do so. Up the long Bright Angel Trail again by evening and into a sleeper once more after a strenuous and memorable day.

Sunday, July 21.—Across the Mojave Desert and into the San Bernardino Mts. Detrained at San Bernardino and motored to Riverside over roads that reflected the year's greatest heat—103 degrees.

Into the cool refuge of The Mission Inn, where my long-time friend, Frank A. Miller, has built an hostelry that is so much more than that, and at the same time so much more than a great museum, that its fame is worldwide.

Monday, July 22.—On to Los Angeles, where the pedestrian has got to watch his step and the traffic signals, lest he be handed a summons to the police court. The city's new office buildings, cafeterias and theatres invite architectural inspection, but they will have to wait the Diary's vacation lull while the High Sierras beckon more insistently. So, we bid farewell to civilization and follow John Muir's high trail among the snow-capped granite peaks of the Sierras.



CASSAGNES

From a lithograph by John Richard Rowe

[ARCHITECTURE]
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